

American Artisan

and
Hardware Record

Sheet Metal—Roofing—Warm Air Furnaces—Stoves

Vol. 91, No. 14

CHICAGO, APRIL 3, 1926

\$2.00 Per Year

National Advertising Helps Sell the SUPER-SMOKELESS Furnace

National advertising creates a demand for the wonderful SUPER-SMOKELESS Furnace, brings new customers and sells more furnaces. And satisfied customers bring future business. The dealer who takes on this line now is sure to reap large future rewards.

The SUPER-SMOKELESS Furnace offers to Home Owners many superior advantages unequalled in any other furnace. The dealer who sells them is in a distinct class—actually above competition. He can establish a bigger and better business and get good prices for his work.

Under our Utica Merchandising Plan, our representatives co-operate with our dealers and help them sell the furnaces they buy. This plan is a proved success and brings new customers—sells more furnaces—and increases profits. It will pay you to write—without obligation to you—for full particulars about our Exclusive Dealer Proposition and Utica Merchandising Plan.



Reprint of Page Advertisement in
THE SATURDAY EVENING POST



UTICA HEATER COMPANY

UTICA, N. Y.

CHICAGO, ILL.

OAKLAND

*A 5 year guaranteed grate
in the Type E
Furnace Now!*



YOU need not be a contortionist to shake down the ashes. When you explain to a customer how easily the lever shaker handle revolves the grate, how easily it releases clinkers--- mention the 5 year guarantee and the low price, you will be able to write out the delivery ticket!

*Write immediately for full
details, prices and discounts*

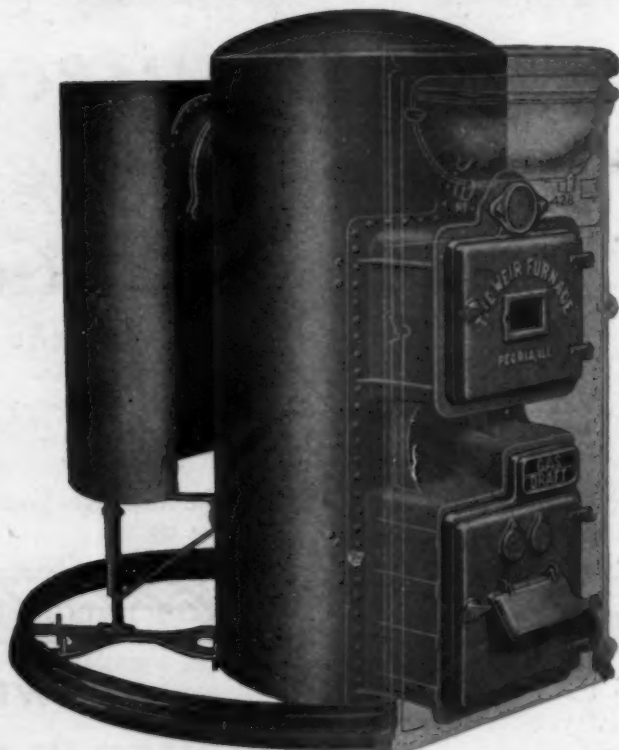
OAKLAND FOUNDRY CO.
Belleville - - - Illinois

Type E
FURNACES

WAS 23/8/126

Weir Steel Furnace

151
2485
Pat 4



Your strongest sales argument is Quality

THE WEIR has always been sold on the basis of *high quality*. The many and costly improvements that have been made to keep it at the top have been made solely in the name of *better quality*.

The fact that the Weir has always been merchandised on this quality program—by good dealers like yourself—and that Weir sales are always increasing, is proof enough that any conscientious warm air heating contractor will find *quality his strongest sales argument*.

But just applying a quality argument is not enough—*your product has to have the quality*.

The Weir has the quality and it is backed by the strongest and broadest kind of guarantee—a guarantee that covers each and every part of the Weir.

And its performance is guaranteed also by a permanently attached brass plate which certifies its heating capacity and guarantees its heating efficiency.

You should become familiar with Weir quality construction—your intimate knowledge of the Weir will eventually lead you to profit by selling it.

Write for your
copy of the



WEIR Book
of Facts

The MEYER FURNACE Co.
Peoria, Illinois

WAS 23/X.11/26



The "GEM" of the World



JOBBER

OR
LARGE DISTRIBUTORS

THE "GEM" is a mighty attractive product—STRICTLY HIGH GRADE yet LOW PRICED.

The "GEM" is a new furnace—modern in every respect—many exclusive features—heavy high quality castings—easy installation features, and backed by a RELIABLE MANUFACTURER

The popularity of the "GEM" has been growing by leaps and bounds since its appearance on the market.

It's a true customer maker and an unbeatable profit producer.

We have a few jobbing connections left to allot and we are desirous of placing the balance of our 1926 production in the hands of the most desirable distributors.

If you can handle a larger volume of high quality furnaces at prices that are on a level and in some cases below those of out of date cheaply constructed furnaces, let us hear from you at once.

We have a furnace and a proposition that merit your deep consideration. If you are out to hit the field and to make money, write today.

ROBINSON FURNACE CO.

228 West Lake Street Chicago, Ill.



LINCOLN
WORTHY OF THE NAME
FURNACE

Worthy of the Name!

THE Lincoln Furnace is a real advance in warm air furnace construction. It is dust and gas tight. It has all joints covered. Its one piece radiator has all collars cast on. The feed section comes through the front. Large upright shaker operates Duplex shaking and dumping grates.



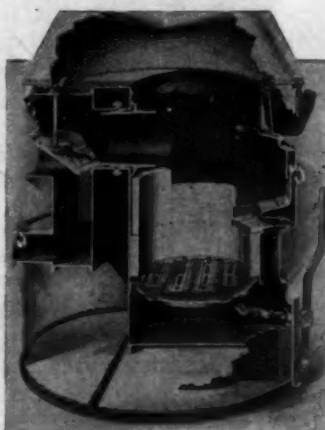
Worthy Features

1. Covered joints
2. Front shaker
3. One piece radiator with all collars cast on
4. Feed section through front
5. Duplex grates

Write for Catalog and Prices

The American Foundry & Furnace Co.
Dept. 400 BLOOMINGTON, ILL.

The Williamson BOILER PLATE FURNACE



In adding the Boiler Plate Furnace to its line, this company is merely extending into the steel furnace field the leadership which it has attained in the manufacture of cast furnaces.

The Williamson Boiler Plate has exclusive features which instantly remove it from the ordinary furnace of this type.

It is all-welded, making it permanently gas and dust tight. Dome made from copper-bearing, blue-annealed locomotive firebox steel—radiator made from Armco iron. Double baffle in radiator splits the hot gases into two streams so that all radiating surface is fully utilized—an exclusive feature. Hot-blast smoke-consumer in door and special vents in fire-brick lining supply hot oxygen directly over the flames, consuming all the heat elements in the fuel. Designed with the demands of the oil burner in mind, making it ideally adapted to any fuel.

Many other attractive features further emphasize the superiority of the Williamson Boiler Plate Furnace. New and interesting sales policy gladly submitted. Make sure of your territory NOW.

The Williamson Heater Co.
Cincinnati, Ohio



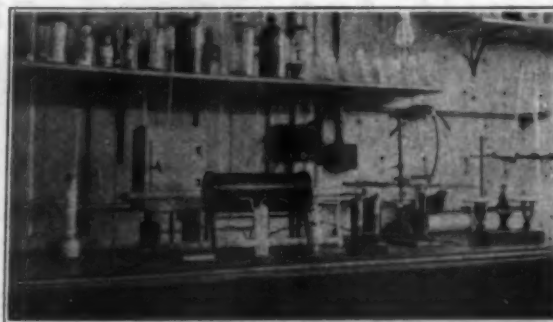
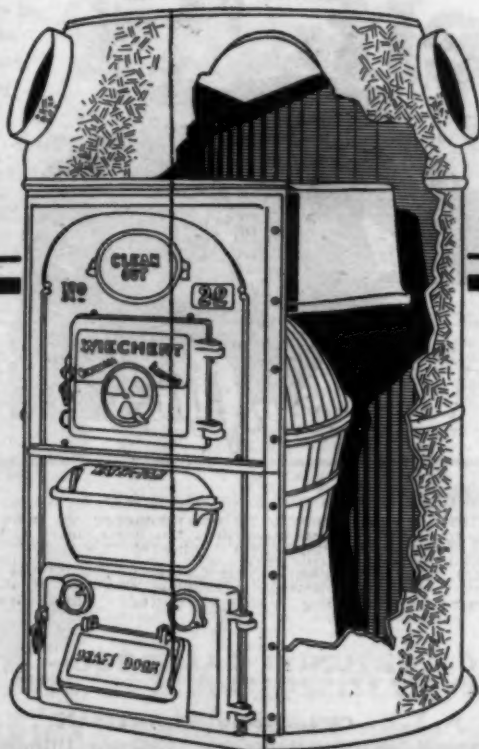
For the big jobs

SELL a Wiechert Pipe Furnace, No. 20 Series, or possibly a Heavy Duty Type. The Wiechert is a furnace that never lies down! It will warm a big place in zero weather. It will serve for years. It will build you a reputation as a mighty good furnace-man. The only thing small about a Wiechert is its appetite for coal.

Extra-good discounts to dealers, too. Write for them!

St. Clair Foundry Corp.
Centralia, Ill.

No. 20 Series Pipe Furnace



A partial view of our
Testing Laboratory

NIAGARA Furnaces

have the supreme confidence of every dealer who handles them.

They are Laboratory Tested from raw materials to finished product.

Niagara Dealers know that they are made right and will perform right.

Write us and let us tell you how carefully and thoroughly our "Laboratory Tested" Plan performs to your benefit.

The Forest City Fdy. & Mfg. Co.
1220 Main Avenue Cleveland, Ohio

The Forest City Foundry
and Manufacturing Co.
Cleveland, Ohio

Send us complete information on Niagara Furnaces at once.

Name

Address

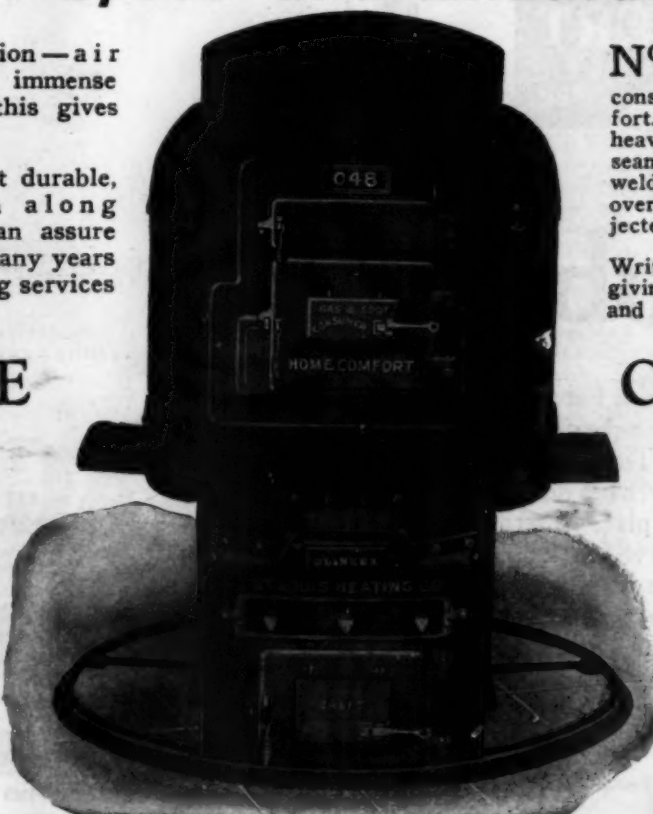
Built for Speed and Endurance, Too—

STEEL construction—air tight and with immense radiating surface—this gives quick heating.

But be sure you get durable, sturdy construction along with steel. You can assure your customers of many years of real severe heating services with the

"HOME

"HOME COMFORT" Steel Furnaces are sold only to the trade—The agency is an assured money maker. Let us outline the Home Comfort Agency plan to you now. Write for our booklet "The Joy of Home Comfort."



NOTICE the large double doors and the solid, sound front construction on the "Home Comfort." The dome is one piece heavy gauge steel plate. The one seam is tight riveted practically welded and is in front directly over the feed door where it is subjected to the least heat.

Write today for complete catalog giving full detailed information and numerous illustrations.

COMFORT"

**ST. LOUIS
HEATING
COMPANY**

2901-11 Elliot Avenue
St. Louis, Missouri

PITTSBURGH DISTRIBUTOR
Wagener Bros., 3605 East Street

OPPORTUNITY CALLS YOU, Mr. Furnace Man, so—

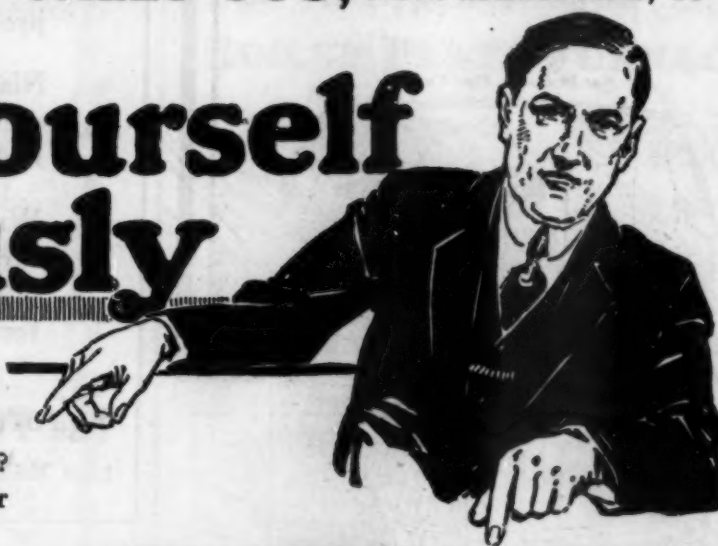
Ask Yourself Seriously

Are your profits satisfactory?
Have you sufficient capital?
Are you still tied to the bench?
Are you not capable of better things?
Can you sell furnaces?

HERE IS YOUR OPPORTUNITY

We are among the "big fellows" in the furnace field.

We have the capital and will match it with your ability, establishing you in the furnace business in a fertile field, provided you have the qualifications.



Write us fully outlining your education, business and selling experience. The character of your reply is our only opportunity of judging you, so go into details. Your reply will be held in confidence until we have your permission to treat it otherwise.

We repeat:

OPPORTUNITY CALLS YOU—

Write today—

W. Y. K., care AMERICAN ARTISAN
620 South Michigan Avenue, Chicago, Illinois

Vernois

You Can Meet
Every Requirement

THE VERNOIS line includes both Pipe and Pipeless Furnaces. You can offer every home owner the precise type, style and size of furnace that will give best service in the building where it is to be installed. You can meet price competition with a quality furnace that will deliver ample heat without fuel waste.

VERNOIS

Pipe and Pipeless Furnaces are built for durability and efficiency with big radiators, extra heavy combustion domes, two-piece fire-pots and other construction features that insure customer satisfaction. Write for catalog A-8 and dealer proposition—now.



MT. VERNON FURNACE & MFG. CO.
MT. VERNON, ILL.



THE BIG OPPORTUNITY for 1926 For FURNACE JOBBERS

Lies in
the
Agency
for

Grand

Warm
Air
Furnaces

Secure It Before It Is Too Late

Unrivalled Production Facilities Enable Us to Offer You a Furnace, Unequalled in Finish and Mechanical Precision—and at a Reasonable Price.

The Cleveland Co-operative Stove Co.
East 67th St. and Central Ave. Cleveland, Ohio

Read This Practical Book NOW SNOW'S FURNACE HEATING

(Enlarged Revised Edition)

A book that deals with the different types of furnaces, their construction, proper location and setting together with furnace fittings. It is the standard authority.

This new edition contains a chapter covering the main features of one pipe or pipeless furnace heating, which has become a big factor in warm air heating.

Contents—Furnaces; House Heating, Combination Systems; Air, Heating and Ventilation of School Buildings; Heating of Public Buildings, Churches and Stores; Fan Furnace Combination System; Temperature Control; Estimates and Contracts; Fuels; Miscellaneous Tables and Data; Furnace Fittings; Miscellaneous Notes, from Various Sources on Furnace Heating.

Order your copy now and ask for our 10 page catalog of books.

BOOK DEPT.

620 S. Michigan Avenue
Chicago, Illinois



264 Pages
PRICE, \$3.00
Postpaid

AMERICAN ARTISAN



A G A I N !

for the season
of 1926—

WE SAY:

“EVERYTHING NEEDED IN
THE INSTALLATION OF
WARM AIR FURNACES”

AND
THE
BEST
THERE

IS
OF
IT!

F. MEYER & BRO. CO.

1311-13 S. Adams St.

Peoria, Ill.

100% Free Air Capacity

The Improved STEARNS REGISTER

Just Out—



THE finest job of free air capacity designing on the market.

No loss of strength—

No loss of neat appearance—

It's the one register that gets the air across and still does not look like a hole in the wall. Write for list of capacity sizes today.

Our production facilities have been increased and we can now take care of additional business. See the Improved Stearns Register now.

Our selling plan saves you money.

Write for our catalog and prices.

Features

100% Free Air Capacity

The enlarged openings have increased the free air capacity so that we now can guarantee full capacity. For example 9x12 Baseboard Register has 73 sq. inches and is intended for 9" pipe which has a capacity of 63".

Exclusive Patented Operating Device

The only operating device of its kind on the market. It does not use springs or tension. Simple and effective.

Superior Finishes

The highest type of finishing is used on Stearns Registers. They are furnished in all the regular electro-plated effects. Also finished in popular lacquer finishes such as Brush Brass, Antique Brass and in perfect replica of Oxidized Copper. These lacquer finishes sell on same list price as White Japan.

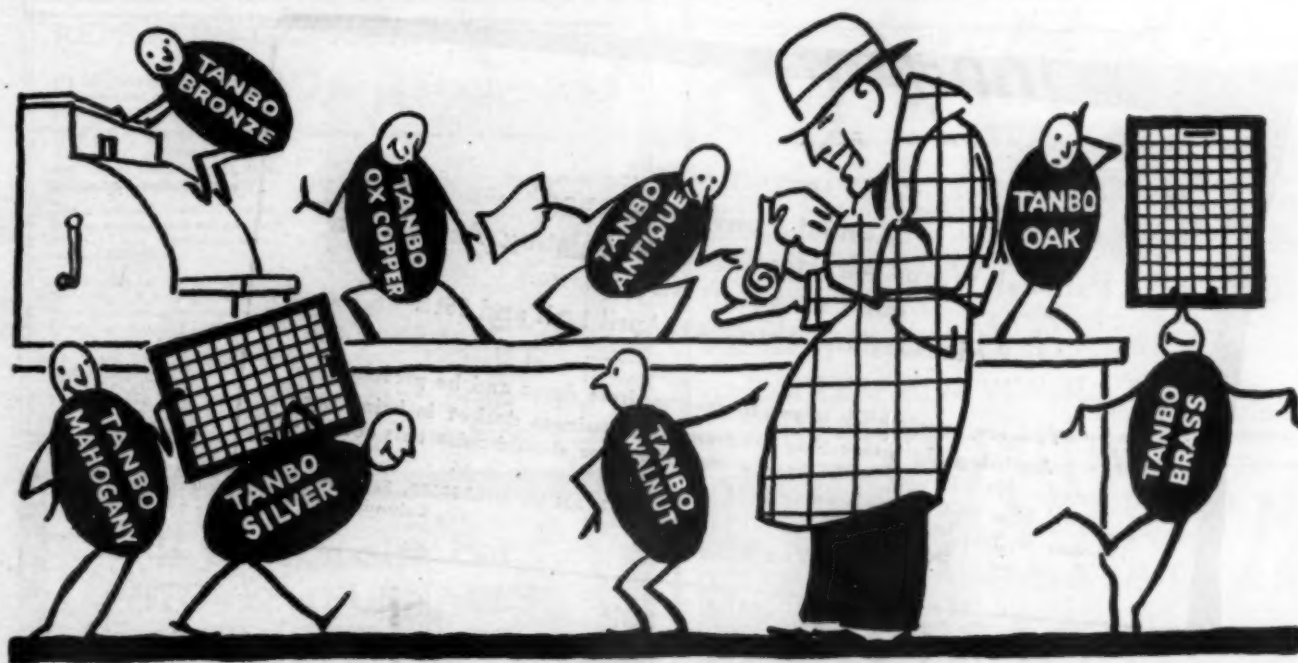
Quality Construction

Stearns Registers are sturdily constructed in every respect. They are exceptionally good looking and suitable for the finest homes.

Sales Policy Lowers Cost

Let us send you a sample together with our prices. We will show you how you can buy first quality registers at a saving by taking advantage of our sales policy.

STEARNS REGISTER COMPANY
617 Fort Street Detroit, Michigan



Tanbo Sells Registers

TANBO, the famous finish we originated, has increased the register sales of many distributors. It gives your customer a better looking register, a more finely finished register, a better wearing surface.

The Tuttle & Bailey Radiator Cabinet

Our All Steel Radiator Cabinet makes instant appeal to owners of steam or hot water heating plants. It is very reasonable in price—allows free circulation of air—and completely hides ugly radiators. Full specifications and prices sent on request.

Tanbo contains the same ingredients as electro plate, applied under high pressure.

Tanbo wears indefinitely. Will not tarnish. Costs less.

Tanbo is *not* a lacquer. It is far superior to any lacquer in wearing quality and appearance.

Tanbo standard finishes are—Brass, Oxidized Copper, Antique, Bronze, Silver, Walnut, Oak, and Mahogany.

Drop us a line and let us send you full details regarding Tanbo, including a color card which shows the Tanbo finishes, as they are.

TUTTLE & BAILEY MFG CO.

Makers of Registers for 80 years

36 Portland Street, Boston

441 Lexington Avenue, New York

704 East 18th Street, Kansas City

1123-29 West 37th Street, Chicago
Bridgeburg, Canada

T & B Registers and Grilles



ADVANCE NOTICE

Annual Convention 1926
National Warm Air Heating & Ventilating Association
HOTEL CHASE " ST. LOUIS, MO.
Wednesday and Thursday, April 14th and 15th

You are courteously urged to reserve these dates and be present
An intensely interesting program and business docket is being prepared. No Furnace or Accessory manufacturer should miss this convention. New and Special features.
February 19, 1926.

ALLEN W. WILLIAMS, Secretary
Columbus, Ohio

Complete detailed report of these meetings will appear in the April 17th issue of

American Artisan
and
Hardware Record

This means exceptional advertising value for furnace and furnace accessory manufacturers.

Better Reserve your advertising space NOW!

AMERICAN ARTISAN

620 S. Michigan Avenue

Chicago, Illinois

REPS AERO-GAS RADIANT HEATER

DESIGNED by the original producer of Gasoline Pressure Radiant type heaters.

Finer results and perfect satisfaction. Heavy gauge steel construction, baked black enamel finish and nickel plated trimmings.

Top is designed to enable cooking. All parts are extra strong and well made. This illustration shows method of lighting.

Write today for illustrated circular giving full description of this heater and our new complete line of high grade quick selling Gasoline Pressure Cook Stoves, Ranges, Cabinet Ranges and Table Ranges.

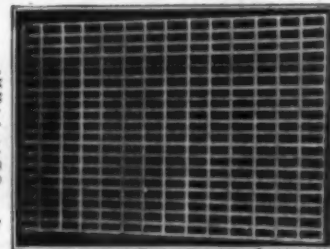


REPS HEATER COMPANY, Clyde, Ohio

Eaglesfield EXTRA HIGH GRADE WOOD FACES

MADE by special machinery. Finest white quartered oak and High Speed Ball Bearing mechanism insure perfect construction. Specially designed grooving saw cuts all grooves exact size. Eaglesfield Wood Faces are stronger than others—the cross pieces are 1/16 inch deeper than these used in other faces.

Single orders or carloads promptly at fair prices. Write today.



EAGLESFIELD VENTILATOR CO.

918 DORMAN STREET

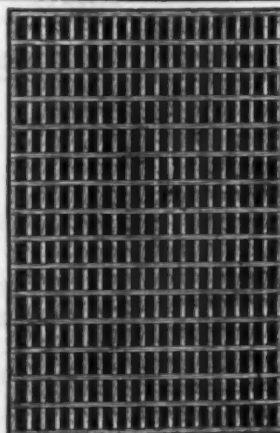
INDIANAPOLIS, IND.

If It's Repairs For STOVES, FURNACES OR BOILERS—

WE HAVE THEM

Send for Our Illustrated Book of Order Blanks Today

NORTH WESTERN STOVE REPAIR CO. CHICAGO ILLINOIS



AMERICAN WOOD REGISTERS

are

thoroughly inspected and before leaving the factory must come up to the

AMERICAN STANDARD, which assures you the highest quality.

THE AMERICAN WOOD REGISTER CO. PLYMOUTH, IND.



BOLTS

WE MANUFACTURE A COMPLETE LINE OF BOLT PRODUCTS, INCLUDING STOVE BOLTS, CARRIAGE BOLTS, MACHINE BOLTS, LAG BOLTS, NUTS, ETC. ALSO STOVE RODS, SMALL RIVETS AND HINGE PINS, CATALOG ON REQUEST.

THE KIRK-LATTY MFG. CO. 1971 W. 85th St. Cleveland, O.

PATTERNS

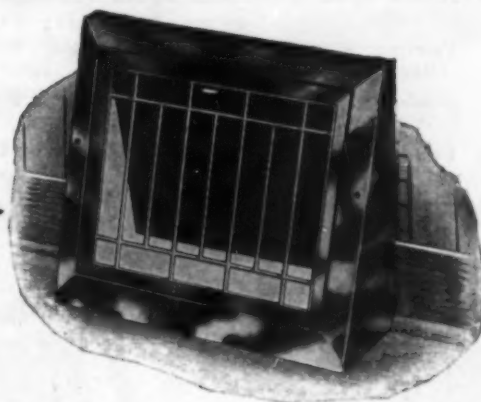
FOR STOVES AND HEATERS FIRST-CLASS IN WOOD and IRON
VEDDER PATTERN WORKS ESTABLISHED 1835 TROY, N. Y.

IRON AND WOOD STOVE PATTERNS

QUINCY PATTERN COMPANY
QUINCY, ILLINOIS

PATTERNS FOR STOVES AND HEATERS

THE CLEVELAND CASTINGS PATTERN COMPANY
CLEVELAND, OHIO



Yes, we admit

it's Attractive
it's Efficient
it's Economical
it's the Vol-Yum register

for volume Furnacework
for volume Profits.

Mail coupon today for interesting prices and information.

Rock Island Register Co.,
Rock Island, Ill.

YOU may send your interesting prices and information on Vol-Yum registers.

Name

Street No.

City and State.....

Mention AMERICAN ARTISAN in your reply—Thank you!

Published to serve
the
Warm Air Furnace,
Sheet Metal, Roofing,
Stove and Hardware
Industries

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\$2.00 Per Year

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AN ACHIEVEMENT

An explanatory note regarding service to readers of AMERICAN ARTISAN. This paper is now nearing the completion of a half century of service. For almost fifty years it has catered to the needs of the men in the industries which it represents. At no time during its long and successful career has AMERICAN ARTISAN been in a better position to render complete, adequate service to its readers than it is today. In addition to the matter contained in our regular weekly publication, we maintain Service Departments for the use of our readers. If you have a problem to solve, we courteously invite you to submit it to us for solution. In what better way can we learn of your problems than from you direct?

QUICK MEAL

Gasoline Pressure Stoves

embody many features not found in other cooking appliances. They are cleaner, quicker and more convenient. The flame they produce is as hot and even hotter than gas!

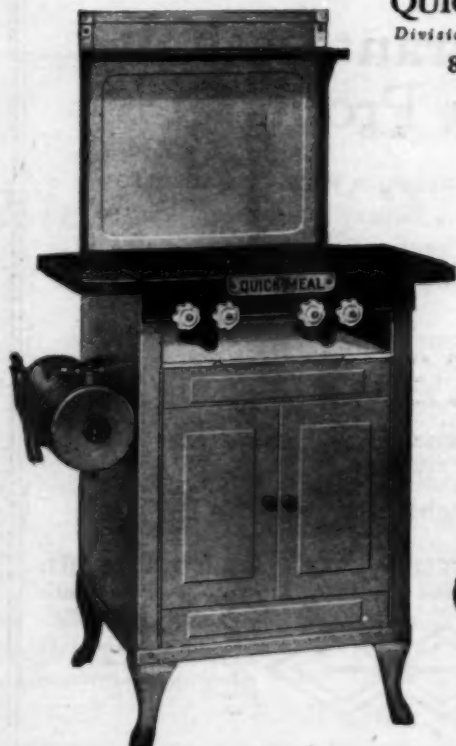
An exclusive and very popular model with four top burners arranged like a gas stove is illustrated below. Very spacious utensil compartment with swinging doors and shelf on the inside. Note the white enamel burner tray. Two side shelves help to give this model a very roomy cooking top. Furnished with plain grey or white enameled high shelf.

When the spring buying season comes, will you be prepared to fill your territory's needs for Gasoline Stoves? Better send for full information on Quick Meal Gasoline Pressure Stoves by filling out and mailing coupon below—now! 1926 will be a Gasoline Stove year.

QUICK MEAL STOVE CO.

Division American Stove Company

835 Chouteau Avenue
St. Louis, Mo.



QUICK MEAL STOVE CO.

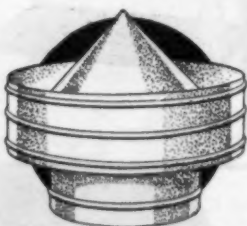
Division American Stove Company
835 Chouteau Ave. • St. Louis, Mo.

*Please send us catalog No. 139,
prices and discounts for Quick Meal
Gasoline Stoves.*

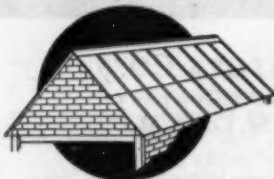
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This advertisement appeared in the Iron Trade Review Jan. 28th featuring the importance of copper bearing, rust-resisting steel.



Nesco Copper Bearing Sheet is ideal for outside ventilators.



Galvanized roofing and siding made of Nesco Copper Bearing Steel is trouble proof and long lasting.

Do Guarantees Kill your Profits?

NOTHING impresses your customers so much as an honest guarantee. And nothing kills your profits quicker than a guarantee on which you are forced to "make good."

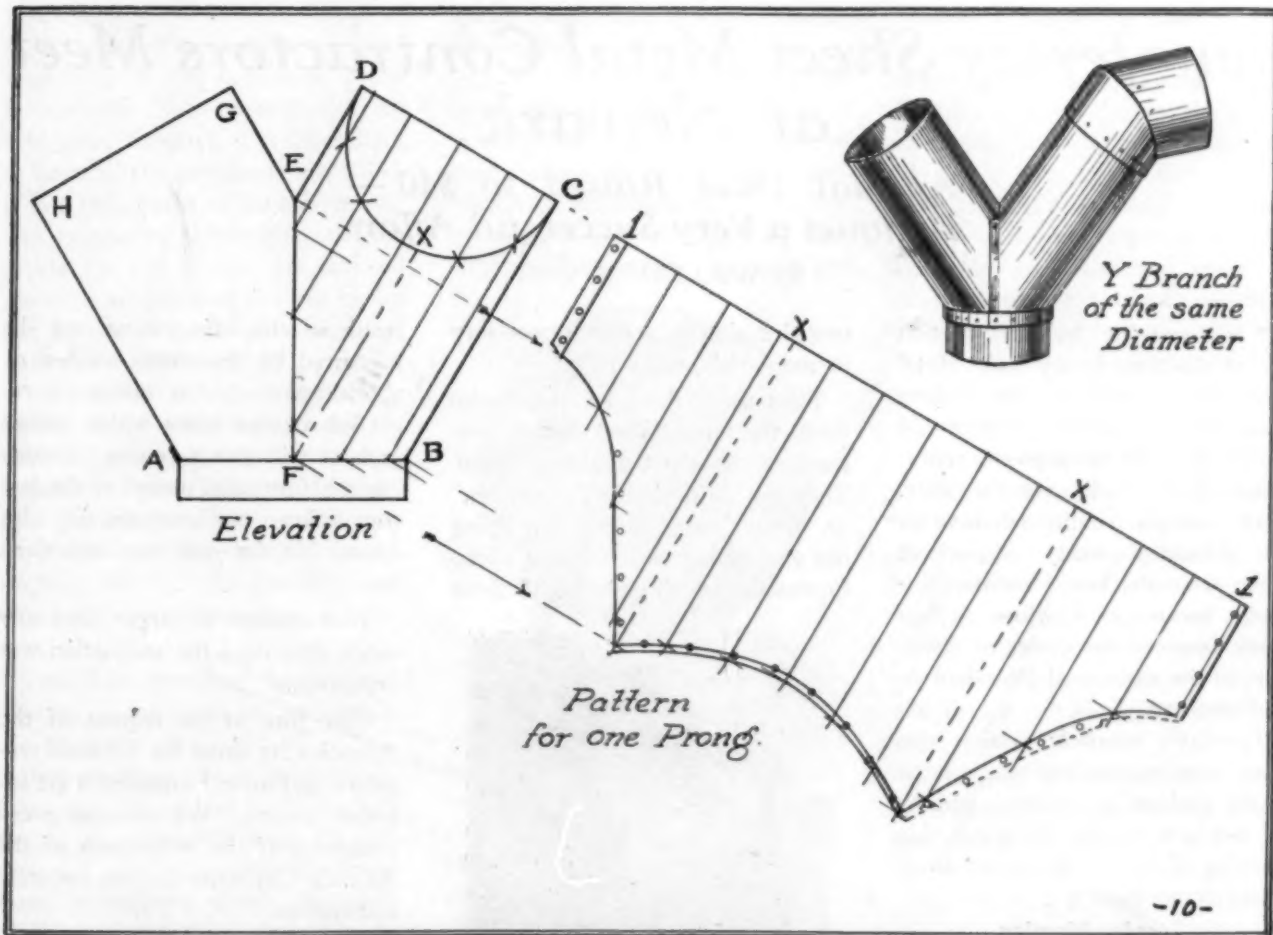
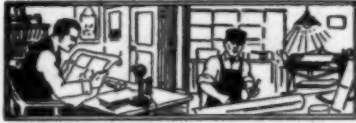
Play fair with your trade and protect your guarantees with Nesco Copper Bearing Sheets—made for strenuous outdoor wear and longer life. Nesco Copper Bearing Steel is rust-resisting. It can be had in any standard Nesco Sheet through leading jobbers.

NATIONAL ENAMELING & STAMPING CO. INC. • GRANITE CITY STEEL WORKS • GRANITE CITY, ILL.
Chicago • Dallas • Davenport • Denver • Kansas City • Los Angeles • St. Paul • St. Louis • Salt Lake City • San Francisco • Seattle

CONVERTING MEMBER
SHEET STEEL
TRADE EXTENSION COMMITTEE



This double diamond trade mark identifies all copper bearing Nesco Sheets.



Patterns for Y Branch of Same Diameter.

Elevation of Pattern for "Y" Branch Often Met With in Furnace Work

Subscriber in Thompsonville, Connecticut, Asks for Pattern on "Y" Branches

By O. W. KOTHE, Principal, St. Louis Technical Institute.

NOW and then it occurs that some workman must make branches of this kind as met with in furnace work, smoke pipe work and such other possible downspouting. It does not offer the ideal condition of equalizing the areas; but this many tradesmen do not care anything about, as it is the making

of something easy and what they feel is suitable.

Observe that each prong must have the same diameter, where A-B, D-C and G-H are of the same diameter. The angle is ordinarily measured, as B-C and the center miter E-F will be a vertical line. The half section is divided in any

number of equal parts and lines are squared into the base lines as shown, thus establishing intersections on the surface of the prong. Observe at F none of these lines intersect and so we must extend a line parallel to the others, as X in the section.

This enables us to set out the

girth as 1-1 and place the high point F in its proper position in the circumference, as X-X in the pattern. Then by drawing stretchout lines parallel with the elevation and squaring out lines from each point

in the miter of elevation, as E-F-B, we bring over these points into pattern, thereby cutting off lines of similar number. This gives us the intersections for tracing the miter cuts as shown. Edges for seaming

can be allowed similar as we show and the opposite prong can be marked off from this pattern. Where angles are met with they are simply added or built on the same as any pipe connection.

New Jersey Sheet Metal Contractors Meet at Newark

*Annual Dues Raised to \$10 —
Banquet a Very Successful Affair*

By WILLIAM C. WHITE

THE two-day business session of the New Jersey Sheet Metal Contractors held at the Robert Treat Hotel, Newark, March 23 and 24, brought out a goodly representation from all over the state. Ideal weather conditions favored the delegates, many of whom drove from the home towns. National Secretary Edwin L. Seabrook assumed the duties of chairman, in the absence of President A. B. Friedberg.

Tuesday's morning session was given over to registration, reports of the various committees, address of welcome to the delegates, appointing of the resolution and nominating committees.

Tuesday Morning

The report of Secretary W. G. Schrack showed that a more co-operative spirit has been shown by the members during the past year, and through a series of six letters to prospective members, fourteen applications were received.

His report in full follows:

Report of Secretary Welling G. Schrack.

In presenting my report to this convention I am very glad to say that some progress has been made during the year. Some new members have been added, and the membership as a whole is stronger and more united than a year ago.

The greatest hindrance to membership increase is apathy on the part of those engaged in the industry. It seems almost impossible to make the rank and file realize that

united, concerted action is necessary to industrial progress.

Then again there are those who think the term "Sheet Metal Contractors" does not apply to them. They are still "tinnerns," "roofers," or "heater men," terms fast dying out and giving way to Sheet Metal Contractor which embrace all those



A. F. Friedberg, Retiring President.

engaged in the business without regard to size, and includes all lines of sheet metal work going in or on buildings.

In spite of apathy, wrong impressions, etc., we are progressing, apathy can be overcome and wrong impressions corrected. The effort in this direction has been through a series of letters. During the year I have mailed six sets of letters, numbering all 2,472. From these letters nine membership applications were received. However the actual

result of this effort must not be measured by the small number of applications. Let it rather be regarded as seed sown which sooner or later will give a return. Counting the four who united at the last convention, our membership increase for the year has been thirteen.

This number is larger than any single year since the association was organized.

Last June at the request of the Atlantic City firms the National secretary and myself attended a get-together dinner. We received every assurance of the willingness of the Atlantic City firms to join the state association.

It is the old, old story, when the trouble that brought them together was settled or passed away, interest lagged and a quorum could not be secured. Eventually, we have every reason to believe that the Atlantic City firms will be a part of the state association. We also fondly hope that those who were such admirable hosts to the convention one year ago, might become one with us in fact and name as we know they have been and are in spirit. However, they are host again today and as hope springs eternal we still hope.

Following the instructions of the convention last year, the bill requiring separate estimate and contracts for sheet metal work and roofing, amounting to \$1,000.00 or more on public buildings, was introduced,

into the legislature at the instance of the state association. This is a constructive piece of work and not a few of our members and some non-members have urged their respective legislators to support the bill. Assurance of support have been received from several assemblymen.

No bills for per capita tax have been sent to the individual members of the State Association for this year, although it is customary to have all the per capita tax billed, if not paid, prior to the convention. The reason for withholding the per capita tax bill is that the national association increased the per capita tax at the Atlanta convention last June from \$3.00 to \$5.00.

As the state per capita tax is only \$6.00, out of which must come the national per capita tax, it is very apparent to your board of directors that the state must increase its per capita tax or there would be almost nothing left of the \$6.00 upon which to operate the state association.

It will be necessary for the convention to act upon an increase in the per capita tax.

The structure of our state association calls for a board of directors to act in conjunction with the officer and like every other official board it ought to direct, the work of the state association needs to be carefully planned and definitely outlined. I wish to recommend that the board of directors meet at least twice between conventions. If this is done work of a constructive nature can be planned, interest created in the sections represented by members of the board and a greater progress will undoubtedly be made if the board meets between conventions.

I think we have every reason to feel encouraged. The state association deserves the hearty and enthusiastic support of the sheet metal firms of New Jersey.

E. A. Lawrence, of the New Jersey Compensation Insurance Rating Bureau, spoke on the subject of safeguarding insurance costs. The bureau sees to it that uniform rates

are charged with no discrimination and where an employer has a small record of losses, his rate would be a minimum. Many of the members have taken advantage of this service and have derived many benefits.

The first speaker for the afternoon session was Harry C. Rogers, of the Sheet Steel Trade Extension Committee, who explained the organization and operation of the committee and what it was doing to promote the many uses of sheet steel, which the sheet metal contractor would benefit by. Mr. Rogers went into detail regarding how the organization was operated and



Welling G. Schrack, Secretary.

what the field men were doing in a nation-wide program, and their advertising campaign that reached every hamlet in the entire country. He told the assemblage that the individual sheet metal man must get out and develop new business, as the possibilities for the use of sheet steel had no limitation.

Warren Carter, of Carter Donlevy, Philadelphia, was introduced and his subject was "Some Aspects of the Future of the Sheet Metal Business as Seen by the Wholesaler." Mr. Carter's address in full appears on pages 19, 20 and 21.

Albert G. Einstein, of Carter Donlevy, exhibited a picture of a school building in Philadelphia on which a metal roof kept a fire from spreading, the fire lasting five hours and the roof still remaining intact. Another remarkable point was that the roof had been in use for 50 years.

At this point a discussion was held on several subjects, including methods of apportioning overhead,

oil burners, lead for architectural sheet metal work, etc., etc.

The annual banquet, which is one of the important features of the convention was held in main ball room with approximately 110 present. The ladies did not turn out in as great a number as last year and it is hoped that more will be present at the banquet in Camden, which is the next meeting place. The Newark boys surely did live up to all expectations and put across a very successful affair. Irving Steinberg and "Bill" Yunker, officers of the Newark local, together with the entertainment committee, are to be commended for the well balanced program and the exceptionally fine dinner that was enjoyed by everyone. It was well near midnight when the happy party dispersed.

Wednesday's Session

The Wednesday morning session was devoted to a lively discussion on warm air furnaces, heating and particularly methods on determining the proper size furnace to install. Other subjects were: estimate methods, association activities, and best result-producing advertising.

"Building New Business with Advertising" was the subject chosen by Bennett Chapple, of the American Rolling Mill Company, and proved to be a W-O-W to all those present. Mr. Chapple's talk appears in full on pages 24 and 25.

It was his earnest belief that the present sheet metal contractor was availing himself of every opportunity to progress. He told of compiling an estimate cost sheet, and had one thousand printed, believing he would have some left over—to his great surprise there were received by him more than 3,500 requests. This is a concrete example of the progressiveness of the sheet metal contractor. Mr. Chapple also emphasized strongly the use of a telephone number to be displayed conspicuously, and gave many examples of this important feature, which sometimes has been overlooked.

A general discussion for the good of the industry was in order, and

many of the members brought up questions of real importance, from which much value was obtained. Harry C. Rogers, of the Trade Extension Committee, assured those present that the resources of the "Committee" were at their disposal, and further stated that his office would lend every possible aid that would in any way further the progress of the industry.

National Secretary Seabrook outlines the work being done by the National Association that indirectly benefited the individual sheet metal contractor. Recently his office sent out a booklet on cornices, leaders, gutters, etc., to every architect, and felt that this would bring the contractor business for which the association would get no credit. That the Newark association is on the job, and especially Irving Steinberg, its secretary, is proven by the fact that a bill has passed New Jersey State assembly which calls for a separate contract on all public buildings where the job is more than \$1,000. Through the untiring efforts of this progressive enough votes were corralled to put it through with one additional and it will be brought into the Senate for passage. When this bill is passed it will be the only state in the union that will have a law. More power to the New Jersey delegates.

The auditing committee, of which Godfrey F. Spaeth was chairman, reported the books had been examined and found correct.

The resolution committee, Howard Moore, chairman, submitted the following resolutions which were unanimously accepted: That the association's sincere appreciation be extended to Harry C. Rogers, of the Sheet Steel Trade Extension Committee; Warren Carter, Carter, Donlevy & Company; Bennett Chapple, American Rolling Mill Company; to the Newark association for their entertainment; to the salesmen for their presence and to the several officers who have given so much to the association during the past year.

On motion of Irving Steinberg,

the per capita tax was increased to \$10.00 per year.

The nominating committee presented the following members as officers for the ensuing year: Howard R. Moore, Glassboro, President; H. A. Schreck, Jersey City, Vice President; Charles A. Swain, Cape May, Treasurer; W. G. Schrack, Camden, Secretary.

Board of directors; E. Bradway, Wildwood and Godfrey F. Spaeth, Camden. There being no other nominations, a motion was made to install the newly elected officers.

President elect Howard R. Moore, in acknowledging the honor given him, assured those present that it surely did come as a surprise, and that in accepting he promises to give his best and asked for the assistance of all the members to keep up the progress of the New Jersey Sheet Metal Contractors' Association.

Being no further business, a motion was made to adjourn until the next meeting which will be Camden, New Jersey. The convention was a complete success.

Illinois Sheet Metal Men to Air Problems at Peoria, April 7 and 8

Program Shows Ample Provision Made for Open Discussion

THE following article contains the program of events which is to be carried out at the convention of the Illinois Sheet Metal Contractors' Association and Travelers' Auxiliary, to be held at the Jefferson Hotel, Peoria, Illinois, April 7 and 8:

Wednesday, April 7

8:30 a. m.—Registration and Distribution of Badges at the Jefferson Hotel Gold Room.

Meeting of Board of Directors.

10:00 a. m.—Convention called to order by R. J. Jobst, secretary of the Sheet Metal Contractors Association of Illinois.

Address of Welcome, Hon. Louis Mueller, mayor of Peoria.

Response and Address, by Charles N. Louis, president of the Sheet Metal Contractors Association of Illinois.

Committee Appointments.

Proposals for Membership.

Question Box.

Wednesday, April 7

2:00 p. m.—Roll Call. Reading of Minutes of the Previous Meeting.

Address, H. S. Rogers, Pittsburgh, Pennsylvania. Subject, "Increasing the Demand for Sheet Steel."

Discussion.

Question Box.

3:30 p. m.—Automobile Ride.

6:30 p. m.—Banquet and Entertainment.

9:30 p. m.—Dancing, Gold Room.

Thursday, April 8

10:00 a. m.—Discussion. Question Box.

2:00 p. m.—Report of Committees.

New and Unfinished Business.

Election of Officers.

Installation of Officers.

Selection of Next Convention City.

Auxiliary Program

Wednesday, April 7

6:30 p. m.—Banquet and Entertainment.

Introductory Remarks, by Charles N. Louis, president, Sheet Metal Contractors Association of Illinois.

Address of Welcome, William P. Laffin, president of Travelers' Auxiliary.

Toastmaster, George Harms, Peoria, Illinois.

Address, J. H. Hudson, secretary Association of Commerce past 12 years, Bloomington.

Applesauce and Raspberries.

Painting a Picture of the Future of the Sheet Metal Business*

Many Ways Open for Sheet Metal Contractor to Increase His Business—Must Have Proper Attitude

By WARREN CARTER, Carter, Donlevy & Company, Philadelphia

AS I STAND here on the shores of Newark Bay, I visualize the future. I see for one thing a great city on Long Island Sound and most of northern New Jersey built up—all of southern New Jersey developed and populated by a vast horde of humanity, tributary to the cities of New York and Philadelphia—happy families rearing their heads, the real makers of the future America.

What does all this mean? Hand-some suburban homes spell warm air furnaces, artistic tin and other metal roofs—endless spouting—in fact, about every metal that you work in your profession, such as copper, brass, zinc, black and galvanized sheets, tin plates. It means apartments for groups of families, with the addition of skylights, light wells covered with metal, metal fire doors, metal cornices, tin roofs.

It means churches, community houses, possibly with slate and tile roofs, but requiring heavy metal trims (you know sheet metal is requisite for the purpose of connecting almost everything exposed to the weather, thus insuring a perfect job), ventilating systems, metal ducts. One of my intimate friends, who is a successful architect and has spent his life in studying church and kindred architecture, now tells me that the people do not drop asleep of a Sunday because of the dullness of the pastor, but because of the deadness and lack of vitality of the atmosphere—no real ventilation.

*Address on "Some Aspects of the Future of the Sheet Metal Business," delivered by Warren Carter of Carter, Donlevy & Company, 1012 Cherry street, Philadelphia, before delegates of the New Jersey Sheet Metal Contractors' Association in convention at Robert Treat Hotel, Newark, March 23 and 24, 1926.

It means stores and business properties—more metal work, lots of it.

It means school houses, one to every few thousand population, now being built with complete and efficient ventilating systems with great ducts made of metal, pumping fresh air into the class rooms—taking the foul air out. Roofs of these buildings to be covered with

In this article the author, Warren Carter, has set forth the reasons for his belief that the sheet metal industry is facing a period of prosperity entirely undreamed of by the most optimistic enthusiasts. The address was directed to the sheet metal contractors of New Jersey, but its precepts are so full of truth and vitality, so fundamental in their nature, that they can be read with profit by not only sheet metal contractors in every section of the country, but by warm air furnace installers and business men in general as well. Mr. Carter's keen analytical mind, together with his close observation of conditions in the industry, only add emphasis to his utterances.

tin to protect the little people from fire and make us parents feel safe.

And so on and on ad infinitum without even mentioning the demand from manufacturing plants. Is this a *real* picture or just a product of a wobbly brain, and are these thousand and one opportunities for the use of sheet metal in the future *real* or just a wild imagination?

I say without challenge that the picture is *real*—that all these openings for the development of the

sheet metal profession exist, that you men are going to share in this great growth—that you are the men to do this work or see that it is done by others of your craft.

Certainly you are not going to sit idly by and see this magnificent possibility dissolve into thin air because of inaction. No, a thousand times no, for you men of grit, vision and intelligent ambition are going to start now—this year, 1926—and in your various communities and in your own way see that more tin, copper and sheets are specified and used for the proper services they are to perform, and who knows better than you men what this is.

Let Us Elevate the Sheet Metal Business.

But, the sheet metal business of the future is going to take greater brain and engineering capacity to handle. Just as all metals today are produced according to standards and physical tests instead of by the old rules of chance and experience, so is the sheet metal construction of the future to be performed by definite standards and specifications instead of by the rule of thumb.

Then let our slogan be from now on, *Let Us Elevate the Sheet Metal Business.*

A prominent sheet metal man said to me very recently: "If we are not careful, the sheet metal industry in less than five years' time will be in the same deplorable state as the lumber business, whereby the builder and property owner buy the exact amount of lumber for a given job, have the yard deliver it direct to the operation (no matter how small the order may be) and get a carpenter to do the work of installation at so much per hour."

Now we must fight this tendency,

which is slowly creeping into various trades, as if such a time as this were to arrive unfortunately in the sheet metal business, be prepared to kiss your jobs goodby, as this would certainly spell doom to us all.

I would repeat and impress upon you as I have said many, many times, and which I know to be a fact, that our business—your business—is *not* a maker to owner proposition and if by any chance it should drift into this, how long, indeed, would there be much sheet metal used.

While the sheet metals are made and prepared and even fashioned in many cases it is unquestionably, unqualifiedly and absolutely up to you sheet metal contractors to buy, handle and install all this material.

It is our province as either maker or distributor to lay this metal at *your* door no matter in what form you may require it and there our function ends. Our interests are certainly interlocking, so we must continue to work and strive for the betterment of this splendid and glorious profession. To this phase of the future I draw your earnest and serious attention.

Quality of Future to Be in Full Keeping With Demand.

How about the quality of the sheet metals of the future? Is this going to be in keeping with the increased demand which we have pictured? I say most unquestionably Yes, provided the fabricator wants it to be.

Just now the efforts of all trade organizations are directed towards securing better metal—cutting out lighter gauges—increasing the wearing quality and durability of material.

The manufacturers are responding to this or else taking the initiative. The signs are indeed most hopeful and exhilarating towards this end, but please bear in mind that the manufacturer usually makes what the demand calls for. If each sheet metal contractor is individually sold to the idea that he wants to get a better grade of metal for his work it can be gotten.

If you will insist upon using the

highest types of material, you will know that all labor and hard work which have been put on the job will not be lost because the work had to be scrapped before its time, which occurs so often.

Are you plowing your profits back into your business in the shape of improved equipment for better and more extended sheet metal work, or are said profits being spent on things which could be dispensed with until ideal equipment is secured?

I know a progressive sheet metal contractor who paid \$500.00 alone to have electric power brought to his shop—then on top of this a couple of thousand dollars for new equipment. Today he can make almost anything made of metal and is rapidly getting a fine clientele from manufacturing concerns and others using this type of work, guards, blowers, dust collectors, etc. He is solving the slack time proposition. Others can do the same.

Are *you* prepared to spend money—maybe a lot—for machinery, plant and equipment for the purpose of using more metals and thus taking up this slack time which exists in the industry?

Unfortunately a lot of men in the sheet metal working craft are complaining bitterly that it is purely seasonable game. Lots of hard work and overtime at certain periods of the year—dull, uninteresting and unprofitable times at others.

Best Expansion of Sheet Metal Business Comes Through Its Own Kind.

It will be necessary if you are going to expand to change this by hunting up articles and installations that can be made at such off season, so that the business may be changed from a purely seasonable to an all year round proposition.

Some contractors are solving this problem by adding plumbing, steam and hot water heating to their business. This practice generally results to the detriment of the sheet metal end, as the sheet metal end

usually lags and drops into low gear when something else is added.

To my mind the cure does not lie in this direction, but with the general expansion of the sheet metal profession within itself, as I think it, the metal business must be developed through its own kind.

If you have no experienced sheet metal mechanics working at your bench, the business will descend into a mere assembling proposition that will not be healthy for either you or us. I believe any well equipped shop can develop its business to the place where there will always be shop and bench work of the better kind coming on.

To be worth while, any business must be profitable. If you are going to be happy and enjoy your work you must make money out of it. To do this you will have to make more of an effort to look after over-head and rat holes, the latter slip in without warning.

Each job can be considered in reference to its own service value that unprofitable competition may be removed. The cheapest job is often the most costly to the owner, and remember the owner always pays the bill. So keep in mind the selling end, selling the idea to the owner of the better job as being the cheapest ultimately.

Work for a profit. You know that keen satisfaction you have when you pass a job, well done, well finished, well paid for, alike profitable to you and the owner. On the other hand how about the nausea you experience when you are daily compelled to pass an installation that showed a real loss.

Now perpetuation and growth of this business is dependent upon the mechanics who do the actual fabrication and installation under and by the direction of the master mind as represented by you men.

Sheet Metals for Sheet Metal Workers.

It is certainly a business that is anchored to the mechanic and one which can only grow and prosper in proportion to the amount of mechanical skill employed. While this on the face of it may seem a

misfortune, yet it permits of the very opportunity we are struggling for, viz: *Sheet Metal for Sheet Metal Workers.*

Of course, you know without competent mechanics no real growth is possible. Note that I do not dwell so much upon the number of the mechanics employed, but the skill and ability. A few real high-class men will produce more and better work than a raft of false alarms.

Can't get mechanics? Well, how about training them, first in your own shop and then through the vocational school—provided you are located in a city where there is such a school? In any event it has got to be taken by steps. First the boy—then the man. Ultimately you will have to cull your force for efficiency. You will always have to do more or less of this until you secure efficiency. It is a never ending process in any live establishment.

The mechanic of the past did his work largely by rule of thumb. In future, accuracy and knowledge must prevail. This means training. Before you can get a boy interested in the desire to become a better artisan through training, he has got to like his work and care for the atmosphere which surrounds him. To this end I would say, put some life into your shops. How are you going to enthrall a boy to learn a craft if the place he works in and has to work in looks like and feels like an undertaking establishment? Human beings like and must have contact with one another also.

The hum of industry in your plant is going to spell industry to the soul of the workers as well as the boss himself.

A Tin Roof Has to Be Sold or Re-sold.

Are you, as sheet metal contractors, waiting for sheet metal work to come to you, or are you studying out selling methods? For instance, if a patron asks you, we will say, to put a roof on, other than metal, do you first present the merits of a

tin roof before you acquiesce in the substitute?

In other words, do you realize that a tin roof has to be sold or even re-sold, if necessary, and that one of the very best assets any metal worker can have in his hand is the knowledge that there are a lot of good solid tin roofs in his vicinity, even if he did not apply them.

Oh! the quiet dignity of the tin roof, with its great service and long life. Its ability to withstand successfully alike torrid and zero weather. Its beauty and safety. You know that it can be laid in many ways, including artistic appearance as well as service value, and that it can also be painted many colors besides red.

However, all of these things must be presented to the buyer or owner. It will not do the trick if you merely take them for granted.

Are you a tried and true friend of the sheet metal profession? If so, analyze some of the things that can be done in your own place to expand this. Reflect upon the picture which I have drawn and see how far possible it is for you, as an individual contractor believing in his work, to expand it, and note in my picture that I did not even touch on the latent demand emanating from manufacturing plants.

Real Success Depends Upon Attitude Towards Job.

How do each of us measure Success and what is it?

First: By dollars and cents profit?

Second: By what we feel?

I venture to say that a man's success, his real success in life, depends upon his attitude towards his job (no matter what this may be), as in this will be found true and full expression of what the man really is himself and within himself.

Therefore, let us all strive to *Elevate the Sheet Metal Business*, our chosen profession of *Sheet Metal for Sheet Metal Workers*, the one we love, but if we cannot love it and do our best by it and make it all better and larger be-

cause we have been connected with it, scrap it and get into something else. As for me, if I had it to do all over again I should go right back into the distribution of sheet metals as a life work.

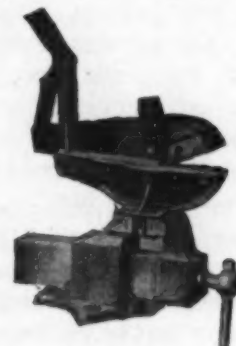
Scoggins Shears a New Development of Interest to Sheet Metal Men

Of interest to sheet metal workers and allied craftsmen is the recent placing on the market of the



Showing Work Done with Shear.

Scoggins patented line of manual metal cutting shears. This is due to the many novel and original features they incorporate. Although the line is composed of four models, the largest of which cuts up to and including $\frac{3}{8}$ -inch round or square bar and 4 x $\frac{5}{8}$ -inch flat stock, it is the two smaller models, Types Nos. 1 and 2-S, which



Shear No. 1.

have a particular appeal to the sheet metal worker.

Both of these shears not only cut round and square bar, flat stock, and work angle iron, but split sheet

metal of any width, up to their capacity.

One important feature of the Scoggins Shear is the patented method of applying the leverage. The lever fulcrums have been so located that a slight pressure exerted on the handle is compounded many times before it is transferred to the jaw carrying the cutting blade.

Other interesting features are the method of setting the tool steel blades in the jaws so that there is no strain on the holding bolts; the



Shear No. 2-S.

fact that they are highly portable and can be mounted in a vice, anvil, or bolted to floor or bench; and a handle which pulls down directly over the cutting blades assuring the operator complete visibility and accurate work.

The lightness of weight—the Type No. 1 weighing only 14 pounds and the Type 2-S 45 pounds—is attained by the employment of electric steel castings throughout, with a frame member cross-section designed for ample strength yet with no excess of weight. Very little space is required; the Type No. 1 being only 16 inches long and the Type 2-S 21 inches.

Another feature which plays a large part in their performance, is the patented method of hinging the jaw. Regardless of the strain, there is no possibility of misalignment of the cutting blades. An illustrated pamphlet showing complete details may be had by addressing the Industrial Sales Corporation, 443 South San Pedro Street, Los Angeles, California.

Semi-Annual Convention of Illinois Sheet Metal Workers Held at Peoria

Illinois Organization Said to Be Largest of Its Kind Under International Association

THE regular semi-annual convention of the State Council of Illinois, Sheet Metal Workers, was held in Peoria, Thursday, Friday and Saturday, March 25, 26 and 27. This council, now just a year old, is already the largest organization of its kind under the International Association and is proving a valuable adjunct to the sheet metal industry of this state. The Executive Board was in session the first day and the convention proper opened Friday morning in the assembly room of the Peoria City Hall. An address of welcome was given by Mayor Mueller and the "keys to the city" turned over to the visiting delegation. President Thomas Redding, of the council, responded to the mayor. The business of the council was then taken up and disposed of, after which the officers for the year were elected.

The officers elected are: President, Thomas Redding, Chicago; first vice-president, Daniel Larkin, St. Louis; second vice-president, Arthur Jennings, Springfield; third vice-president, Alfred Cliffe, Highland Park; fourth vice-president, Wm. Niehaus, Peoria; fifth vice-president, F. Kehoe, Rock Island; and secretary-treasurer, G. R. Wilbert, St. Louis. These officers were chosen to succeed themselves with the exception of Mr. Niehaus and Mr. Kehoe, who were chosen to fill vacancies.

The convention closed early Saturday afternoon and the delegates then went on an auto sight-seeing trip through the city and adjoining country, arriving at the G. A. R. Hall in Peoria, in the evening, where an informal dinner had been prepared by the members of the two Peoria local unions.

Mr. Carl Harms rendered the Flag Tribute and Mr. Wm. Harms of Peoria Local Union No. 146 acted as toastmaster. Addresses were

given by Editor Walter Bush of the Peoria *Labor Gazette*, President Redding of the Council, Vice-Presidents Larkin and Cliffe, Secretary-Treasurer Wilbert and Delegates John Mahney, St. Louis; Albert G. Fox, Chicago; Joseph J. Madden, Joliet, and Frank Harrison, Evanston. The dinner program closed when, upon motion, the assemblage stood for one minute in respectful silence for the memory of the Grand Army of the Republic, in one of whose temples the dinner was being given.

The next convention will be held in Quincy, Illinois, in September.

Sheet Metal Contractor's Work Becomes Ever More Varied and Complex

The sheet metal contractor of today is called upon to work on many construction jobs which a few years ago would have been considered entirely outside of his province.

To cite an example: Recently the Ebling Hardware and Plumbing Company, Inc., Kenmore, New York, were called in to give an estimation on the sheet metal work on a new theater that was being erected in that city.

One of the most important parts of the work erected by the company was the automatic skylight erected over the stage. It might be mentioned here that in some cities these skylights are required by law. Thus the law inadvertently operates for the benefit of the sheet metal contractor. This skylight must be so arranged that in case of a fire occurring anywhere in the vicinity of the stage it opens automatically, thus creating a draft or suction up through the roof of the stage and away from the audience.

In addition to the erecting of this skylight, the company also did all of the coping work, the flashing on the roof, the footlights, the blower pipes for the pipe organ and the

galvanized iron motor covers. The entire theater is surrounded with cove lights, which are run in a galvanized iron trough. These troughs were erected by the company.

Sixteen stores are included in the construction work of the theater building. Here, too, considerable work was obtained by this enterprising sheet metal contractor. The ceilings, including the vestibules, of

these stores were finished with sheet metal ceilings furnished by the Wheating Corrugating Company.

Sixteen pipeless warm air furnaces were also installed in these stores. It is plain to be seen that the Ebling Hardware and Plumbing Company, Inc., was kept exceedingly busy completing this large contract.

Father of Joseph C. Gardner, Indianapolis, Dies After Short Illness

Was Eighty-Nine Years Old and Founder of Sheet Metal Business Which Bears His Name

JOSEPH GARDNER, eighty-nine years old, head and founder of the Joseph Gardner Sheet Metal Contractors, 37-43 Kentucky Avenue, Indianapolis, Indiana, died at the home of his son, Joseph C. Gardner, 615 North Delaware Street, Tuesday afternoon, March 30, 1926, at 3:30 p. m. A short illness preceded his death.

Mr. Gardner was born in Hessen, Germany, March 7, 1837. He left Germany on April 9, 1857, and after a 60-day voyage on a sailing vessel, arrived in Baltimore, Maryland. He lived in Cincinnati, Ohio, for two years and then went to Louisville, Kentucky, where he lived two years.

Going to Indianapolis in 1861, Mr. Gardner tried to join the Union army at the time of the Civil war, but was refused enlistment on account of ill health. He remained in Indianapolis and was employed by the firm of R. L. and A. W. McQuat Company and later formed a partnership with this company, which occupied the present site of the Lincoln Hotel. After twenty-one years' service with this company, Mr. Gardner entered business for himself at the present address of the company, where he remained for forty-four years. Mr. Gardner was widely known among the business men of Indianapolis, as he took an active part in his business until the last few years.

He was a member of the General

Protestant Orphans' Association, Altenheim, Pioneer Society and Germania Lodge of the Odd Fellows. He married Miss Louisa Rohr April 5, 1863, at Louisville, Kentucky. They celebrated their golden wed-



Joseph Gardner

ding anniversary in 1913. Mrs. Gardner died in 1917.

Mr. Gardner is survived by but one son, an only child, Joseph C. Gardner, with whom he has lived since the death of his wife. Besides the son there are three grandchildren, Mrs. J. Albert Schumacher, Raymond Gardner and Edward A. Gardner, and two great grandchildren, Eloise Ann Schumacher and James Raymond Gardner.

Funeral services were held at the

home Friday afternoon, April 2, 1926, at 2:00 p. m., the Rev. F. R. Daries, pastor of the Zion Evangelical Church, officiating. Burial was in Crown Hill Cemetery.

George P. Galvin to Locate in Canton, Ohio, as Berger General Sales Manager

George P. Galvin, manager of the Texas branch of the Berger Manufacturing Company, has been promoted to general sales manager and will have his headquarters in Canton, Ohio.

Recently the Dallas Sheet Metal Contractors' Association gave him a banquet at the Jefferson Hotel. They presented Mr. Galvin with a traveling case in recognition of the coöperation he had always given the Texas contractors.

The following were present: Messrs. Galvin, Helm, Lawler, Foy, Sweeney, Cannon, Kafohl, Kelly, Moncrief, Payne, Horn, Geober, Richardson, McGardel, Tinsley, Whitaker, Smith, Edward Goff, James Goff, Railton, Sprau, Wilcox and Stanyer.

Carnegie Institute of Technology to Offer Summer Course in Sheet Metal Work

As a result of the demand that has been developing during the past few years, courses in sheet metal work, it is announced, are receiving special attention in the plans for the summer session this year at the Carnegie Institute of Technology in Pittsburgh. According to the plans, a combination course in sheet metal pattern drafting and shop work will be given for six weeks from June 28 to August 6 in the College of Industries.

Although the course is arranged to be of primary benefit to teachers of industrial and manual arts, the announcement points out, the work is designed to have a special appeal, also, to undergraduates and to those employed in the trade who feel a need for further technical training.

In addition to the sheet metal work, other departments of the institute will give summer courses of six and eight weeks in length in

woodworking, cabinetmaking, electricity, radio, plumbing, welding, drafting, machine practice, archi-

itecture, English, history, economics, commercial law, mathematics, psychology, chemistry, physics, me-

chanics, surveying, coal mining, and for teachers and supervisors of music and art.

Poorest Way to Save Money Is to Cheat Advertising Budget*

Building Permits a Good Source of Information as to Building Jobs

By BENNETT CHAPPLE, Director Publicity, American Rolling Mill Company.

IT WOULD be a strange thing, indeed, if any one of us would refuse to ride in an automobile, turn on an electric light, or tune in on the radio.

And yet there are some sheet metal contractors who virtually take this position when they fail to realize and appreciate the great force of advertising today.

They are content to go along with the old oil lamp with its flickering rays, while others are turning on their electricity. They are satisfied to walk or drive behind old Dobbin, while others whiz by in automobiles. They are content to sit idly by with deafened ears while the world tunes in on the radio.

Have I overdrawn this picture of the sheet metal man who does not advertise? I leave it to you.

There are many kinds of advertising. For our discussion we can divide it into just two kinds—profitable advertising and wasteful advertising.

If we could always be sure that our advertising would be profitable, of course we would advertise morning, noon and night. The fact that there is a wide choice in how to advertise one's business most effectively is the rub, and requires careful analysis and study.

Now, I cannot make a mitre or solder a sheet—I have not been trained in the craftsmanship of the sheet metal worker. If I want work of this kind, I go to you and ask

you to give me the benefit of your training and experience.

On the other hand, if it comes to the question of how to advertise, let me assume that my experience qualifies me to talk about advertising.

"How shall I advertise my business?" you say. That immediately brings up two things: First, the size of your shop and the kind of work you are fitted to do. If your shop is a large one and you are prepared to take on big jobs, your advertising appropriation should be in proportion to the capacity of your shop.

It is a fair thing to set aside at least five per cent of your gross revenue for the expenditure of advertising. If you are figuring your jobs correctly and using an accurate cost accounting system, this will not be a heavy tax for the development of your business. You would prepare a list of leading architects, leading industries, and arrange to send them advertising regularly—not hit or miss—but as regularly as the clock ticks—once a month or once a year during building season. A campaign definitely planned along these lines, with a carefully selected list cannot fail to bring results, all other things being equal.

Newspapers offer an opportunity for publicity certain seasons of the year, but this type of advertising is more expensive and is largely scattered over the city, so it should be used with discretion.

Building permits are always a fruitful source of information as to building jobs. Arrangements should be made to have immediate

information as to every building permit, and an immediate letter sent soliciting work on the job. This is timing your different approaches to make them all work together to get results.

Budget your advertising and do not cheat the budget. The poorest way to save money in this world is to fail to spend what should be spent for advertising. It is a failure to build a proper foundation for your growing business, for advertising buys years. The man that advertises and spends \$500 a year will find himself at the end of five years where his business would not have been until ten years had he not advertised. In other words, the money he spent for advertising bought five years of progress, and will enable him to make as much profit as he would have been making at the end of ten years under other conditions.

If you are the proprietor of a small sheet metal shop and your jobs are more or less limited, then your advertising is more or less restricted to the fields which you can serve. Residence property requires constant repairs, and furnace repairs make up a good part of the business of the smaller shops. Here is a chance for a definite individual service. The smaller the shop, the better the chance to get into intimate contact with your customers, and you have the advantage of the benefit of personal relations. Here is a chance for real constructive work. As a skilled craftsman of sheet metal you have an opportunity to tell your prospect about the different kinds of metal and

*Address delivered by Bennett Chapple before delegates to the New Jersey Sheet Metal Contractors' convention at Robert Treat Hotel, Newark, March 23 and 24.

their respective merits. You can explain what it means to use a cheap metal when it costs no more to put up a quality material. Your customer will appreciate your telling him how he can save money not by buying the cheapest iron, but by buying the iron that lasts longest.

No time could be more opportune for a sheet metal man to do individual advertising. Any advertising he may do today is being supported by a big joint advertising campaign being put out by the Sheet Steel Trade Extension Association. This means that millions of homes are learning about sheet metal and this paves the way for business. The American Rolling Mill Company is a big contributor to this movement, putting approximately \$40,000 a year into it, and we hope every sheet metal man will take advantage of this advertising prestige. In addition to the support of the Sheet Steel Trade Extension Association, the American Rolling Mill Company is spending \$100,000 to intensify the advertising of Armco Ingot Iron Shops. This campaign in the Post, Colliers and Good Housekeeping will total more than 44,000,000 messages calling attention to Armco Ingot Iron Shops in the different neighborhoods in the country from Maine to California.

This, we believe, will help bring the sheet metal man into prominence in the community for the important part he is to play in building construction. Not only are we supplying these 44,000,000 messages, but we are imprinting blotters, circulars and advertising aids to be sent out by the sheet metal shop that will tie in with this big campaign effectively. There is no guess work about all this. It has been worked out in the minutest detail until we can say it will bring more business for every man that will tie in with it.

One of the more important phases of the Armco Ingot Iron Shop movement has been the development of a simplified cost accounting system, which is available

for all shops, big or little. More than 3,500 shops are using this system to figure costs and this has contributed greatly to the success of hundreds of shops.

The race for business is ever a fast pace. The man that doesn't advertise is like the slow plodder—he will arrive, but when he gets there he will find the advertiser far ahead of him. Now is the time for you to decide whether you are going to advertise, and if you decide to advertise, then by all means *advertise*, for in advertising, as in everything else, "Keeping everlastingly at it wins."

April 9 Is Sheet Metal Jobbers' Night in Pittsburgh

Friday evening, April 9, 1926, is sheet metal jobbers' night at Pittsburgh. On that night sheet metal jobbers and as many of their men as they care to bring will be welcomed at the Chamber of Commerce Auditorium, second floor Chamber of Commerce Building, Smithfield Street and Seventh Avenue, Pittsburgh.

Arrangements have been made to present guests to Captain Irving O'Hay, one of the heroes of Richard Harding Davis' book, "Soldier of Fortune." He has a weird sense of humor, a homely philosophy, and a sound sense of logic. Captain O'Hay has taken part in every war since 1897, serving all through the World War with the English and American forces. There will also be music and many other interesting features.

Wants to Know Who Makes Dovetail Leg Sockets

TO AMERICAN ARTISAN:

Kindly advise me who makes a cast iron dove tail leg socket and legs to fit them, weighing about 11 pounds a set of four. These legs are to be fitted to the base corners of ranges made without legs.

Yours very truly,
PERCY H. SMITH.

Statement of the Ownership, Management, Circulation, Etc., Required by the Act of Congress of August 24, 1912,

OF AMERICAN ARTISAN AND HARDWARE RECORD, published weekly at Chicago, Illinois, for April 1, 1926.

State of Illinois, County of Cook—ss. Before me, a notary in and for the state and county aforesaid, personally appeared Etta Cohn, who, having been duly sworn according to law, deposes and says that she is the Business Manager of the AMERICAN ARTISAN AND HARDWARE RECORD, and that the following is, to the best of her knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above-caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business manager are:

Publishers, C. W. Spofford, Evanston, Illinois, and Frank McElwain, Chicago, Illinois.

Editor, George J. Duerr, Chicago, Illinois.

Business Manager, Etta Cohn, Chicago, Illinois.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

C. W. Spofford, Evanston, Illinois.

Frank McElwain, Chicago, Illinois.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

There are none.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest, direct or indirect, in the said stock, bonds, or other securities than as so stated by him.

ETTA COHN,
Business Manager.

Sworn to and subscribed before me this 31st day of March, 1926.

[Seal.]

EDNA A. LLOYD.
(My commission expires January 16, 1928.)

Ryerson Has New Contour Cutting Serpentine Shear

Joseph T. Ryerson & Son, Inc., Chicago, has recently perfected a new sheet metal cutting shear known as the Ryerson Serpentine Shear.

One of the advantageous features of the shear, according to the maker, is its throatless construction. This permits the cutting of sheets or light plate of any length or width without difficulty. Bulletin 13352 will bring you complete data concerning the Serpentine shear. Write for it now.

Who Makes Putty Described Here?

TO AMERICAN ARTISAN:

Can you tell me who manufactures a putty which comes in 100-pound cans and is used as a covering for floors, tables, etc.? It is also used in connection with plumbing, filling in crevices around built-in tubs, etc.

It requires 24 hours to set thoroughly after application.

In some localities this product is called wood stone.

Yours very truly,
WM. H. JAHDE.

Nu Dura Tin Anniversary Dinner to Be Held at Philadelphia, April 26

The Metal Club and the Roofing, Metal & Heating Engineers of Philadelphia, organizations of the distributors and the warm air heating industries, respectively, have arranged to hold the annual "Nu Dura" trade dinner on Monday evening, April 26, at 6 p. m., at the City Club, 313 South Broad Street, Philadelphia, according to F. U. Ritter, Secretary.

This dinner has always been well attended in past years and, according to the opinion of the committee on arrangements, there will be between 300 and 350 covers laid. In addition to the sumptuous dinner, there will be heard interesting speakers and loads of fun will be had.

The dinner is given in honor of the advent of "Nu Dura" tin for roofing. "Nu Dura" is a Philadel-

phia trade mark that stands for co-operation of Philadelphia sheet metal contractors and heating men toward the establishment of the sheet metal roof in its proper place. During the past year "Nu Dura" sales have shown a considerable increase over those of previous years.

According to a statement by Secretary F. U. Ritter, over 5,000,000 square feet of "Nu Dura" tin has been sold in the Philadelphia district alone during the past six years. This large sales volume takes on an added significance when it is learned that not a single complaint has been made during the entire six years.

Professor A. C. Willard Addressed Milwaukee Chapter N. S. of H. & V. E.

On Monday night, March 15th, the members of the Milwaukee Chapter of the National Society of Heating and Ventilating Engineers gave their undivided attention for two hours and forty-five minutes to an extremely interesting and instructive talk by Professor Willard.

The talk, which finished up with a general discussion, dealt with a complete resumé, presented in a non-technical manner, of the experiments conducted by Professor Willard and his staff in the National Heating and Ventilating Association's Research Residence at Urbana.

Those present, including guest members from the American Institute of Architects and Master Sheet Metal Workers' Association, extended a vote of thanks to Professor Willard for his splendid lecture and also to Henry E. Schwab, Vice-President of R. J. Schwab & Sons Company and chairman of the March Entertainment Committee, who was responsible for the interesting program.

We would like very much to have you send us some pictures of unusual sheet metal roofing jobs for reproduction in AMERICAN ARTISAN. Small Kodak pictures will do. Send in the facts concerning the job when you write. What is the oldest sheet metal roof you know of?



Preparing Galvanized Iron Surfaces for Paint

From a Subscriber.

How can I prepare galvanized iron, brazed, welded and soldered surfaces for paint or lacquer?

Ans.—By brushing on ordinary household vinegar and allowing it to dry.

Revolving Electric Signs

From The Alamo Furnace Company, 541 West Western Avenue, Muskegon, Michigan.

Who makes revolving and long movable electric signs, such as are used in windows for display purposes?

Ans.—Solar Electric Company, 124 West Lake Street, Chicago, Illinois.

Draft Gauge and Anemometer

From Lucas Heating Company, Incorporated, 7440 South Chicago Avenue, Chicago, Illinois.

Kindly advise us who makes a draft gauge and an anemometer.

Ans.—E. Vernon Hill Company, 64 West Randolph Street, Chicago, Illinois.

"Hart" Oil Burner

From Ray Wright, 272 South Jackson Street, Jackson, Mississippi.

I would like to know who makes the "Hart" oil burner for use in warm air furnaces.

Ans.—The W. B. Wilde Company, 709-715 Main Street, Peoria, Illinois.

Vacuum Furnace Cleaners

From W. H. Kratzer Company, 5193 Loraine Avenue, Detroit, Michigan.

Please advise us who makes vacuum systems for cleaning warm air furnaces.

Ans.—William R. Brown, 319 Main Street, Buffalo, New York, and B. F. Sturtevant Company, Hyde Park, Boston, Massachusetts.

Insulation Products

From Joseph Harnion, 225 Central Avenue, West Duluth, Minnesota.

Can you tell me who makes the insulation products mentioned on page 34 of the March 6th issue of AMERICAN ARTISAN?

Ans.—Armstrong Cork and Insulation Company, 202 24th Street, Pittsburgh, Pennsylvania.

The Editor's Page

Bringing University's Influence to Bear on Industry

AT THE Iowa Sheet Metal Contractors' Association convention, held at the Iowa State College, at Ames last week, there was tried an experiment well worthy of consideration. Here sheet metal men heard their business discussed from a scientific angle. They asked questions which were answered by men whose scientific minds were brought to bear and produced answers which cleared up not only the difficulties of the questioner but those of other men in attendance. The experiment proved far more beneficial than the hopes of those who had the convention in charge had allowed them to anticipate.

Sheet metal contractors in other states might well follow Iowa's example in this respect. And the time is not far distant when such will be the case.

In the warm air heating industry no one can question the good that has come out of enlisting the aid of the university. The mid-year meeting of the National Warm Air Heating and Ventilating Association at Urbana is replete with good for the industry. The investment in equipment at Urbana has produced more than a high return of interest. It has already proved the salvation of the industry. As time goes on the industry will gain in prestige because of its connection with the university. The public has confidence in the research departments of its universities. They produce results always beneficial to civilization, because the men who head them and do the actual research work are intensely interested in the subjects treated. They are in the work to gain the desired end and not for excessive profit to themselves.

Other industries have long ago felt the need for the cooperation which only the universities can give them. Consequently they have in many instances financed with their own undivided profits many revolutions in their own particular phases of industry. They have won prestige and made profits as well.

After all why should there not be coöperation between industry and the state universities? Why are universities founded by the state? What end do they serve if not the uplift of civilization? Who supports them if not the taxes paid in a large measure by industry? Is not the contribution made to the welfare of humanity by the sheet metal contractor as important as that made by any other industry? A dwelling with a leaking roof or bad ventilation is as detrimental to the health of the occupants as is one with crevice filled side walls.

The state universities have more than once expressed their willingness to coöperate with industry in any of its numerous phases to the end that humanity becomes better housed, better clothed, better fed.

But the industry that is to be directly benefited by such coöperation must take the initiative. It must show a willingness to invest at least a small portion of its profits

in the equipment and actual research work. It would not be fair to charge the bill to industry as a whole or to the general public as a whole. You buy a new machine out of your undivided profits. You do not, however, expect anyone but the customers who reap the benefits derived from this new machine to pay for it.

The fact that sheet metal men are beginning to seek the assistance of the universities augurs well for the industry. It indicates that the desire to improve is present in the industry.

This change in viewpoint is not confined to the Iowans alone. Faint rumblings in this direction have already been heard in almost every section of the country. At the Indiana Sheet Metal Contractors' convention President Mattingly voiced his views in no uncertain terms on the desirability of holding the next convention of that association at Purdue University. He urged each member to consider the proposition thoroughly and he was certain that a great deal of good would result to all members who attended in case the meeting is held there.

The men who take their attendance at a convention seriously are beginning to regard the meetings not as a subterfuge to get away from their businesses for a few days' lark, but as an opportunity to learn something about their businesses which could not be learned in any other way. Herein lies the secret of progress in an industry. Thought always must precede action. A dream of an industry raised to a higher plane than it now occupies must exist in the minds of a majority of those who make up that industry, together with a desire to raise the industry to the new and higher plane, before that object can be actually accomplished. In true knowledge there is power sufficient to overcome all obstacles.

Giving Full Details When Seeking Information

IN THE course of a year there are received in the office of AMERICAN ARTISAN thousands of letters which contain requests for information on divers subjects. Many of these requests for information are answered through the columns of AMERICAN ARTISAN. Many more are answered by direct mail correspondence. Every effort is made to produce the desired information.

However, it often happens that the query department is unable to give a complete answer because of a lack of definite details from which to work.

The enviable record of forty-five years of uninterrupted success which AMERICAN ARTISAN has enjoyed has been based entirely upon the service it renders. Its only stock in trade is service. For that reason your inquiries are welcomed. But we urgently solicit your indulgence to the extent that when writing for information you give us as many of the facts and details as are available to you. It will aid us greatly in running down the information desired.

Random Notes and Sketches

By Sidney Arnold

"The essence of humor is sensibility; warm, tender fellow-feeling with all forms of existence."—Carlyle.

J. L. Pillmore, who is located at Monroe, Wisconsin, and who represents the Detroit Stove Works in that territory, came in to see me one day this week. Mr. Pillmore was passing through Chicago and dropped in to put his name on our subscription list.

* * *

J. D. Swartwout of the J. D. Swartwout Company, Saginaw, Michigan, is a good citizen because he registers and votes at every election.

During the recent registration proceedings, while J. D. was preparing to discharge his civic duty at the poles, a colored woman presented herself at the registration booth with the intention of enrolling and casting her first vote in the ensuing election. She gave her name, her address and her age; then the clerk of registration asked this question: "What party do you affiliate with?"

The woman's eyes fairly popped out of her head. "Does I have to answer dat question?" she demanded.

"It's the law," the clerk told her.

"Den you just scratch my name offen de books," she said. "Ef I got to tell his name I don't want to vote. Why, he ain't got his divorce yit."

* * *

It does sometimes seem like "going through hell" in being compelled to listen to some speakers, but it must often be done to show our appreciation, even though it be insincere and at a convention.

Shortly after the World War ex-President Taft, who is now Chief Justice Taft, was invited to make a speech in the Middle West. On the same platform was a patriotic fellow who had been wounded over in France. He was to be called on to speak after Mr. Taft had finished. The ex-President spoke at great length, and the audience had come

out, of course, to hear him speak. Just as soon as he finished they started to leave the building. The ex-President leaned over to the chairman, said something, and that dignitary then shouted, "Come back here! Come back here, every one of you, and take your seats! This fellow went through hell for us during the war, and it is up to us to do the same thing for him now."

* * *

I have just learned that S. C. Whitcher has given up his Wisconsin territory for the Lennox Furnace Company. Mr. Whitcher has gone to Minneapolis, where he will take over the management of a large retail warm air furnace business.

He has been with the Lennox Furnace Company for the past 16 years, the last ten of which he has spent in Wisconsin. Mr. Whitcher has my best wishes for success in his new venture.

* * *

It seems they have difficulties with telephone service in Detroit as well as in Chicago. Joe Stearns was attempting to get a number recently. Two girls were talking on the line. Both were discussing what they should wear during the Easter holiday party. Joe, growing impatient, asked for a number in his most masculine voice. One of the girls became indignant and scornfully asked: "What line do you think you're on, anyhow?" "Well," said Joe, "I really don't know, but from what I've heard I should say that I was on a clothesline."

* * *

H. W. Berger, Waterloo, Iowa, who represents The Detroit Stove Works, and James F. Flavelle, Marshalltown, Iowa, who represents the Meyer Furnace Company, are two sticklers for table etiquette. The least departure from the ordinary

rules of table etiquette in the presence of either one of these gentlemen provokes loud protest. It was in the dining room of one of the smaller steamers that travel between Chicago and Duluth. Mr. Berger and Mr. Flavelle were among the few passengers who had the courage to descend from the cheerful deck to the stuffy little dining saloon where a table d'hote meal was being served.

Suddenly the rattling of dishes in the galley ceased. The chef appeared clad in a none-too-immaculate apron.

"Keep your knives, everybody!" he bellowed warningly; "we're gonna have pie for dessert."

* * *

During the period of adolescence of C. F. Malone, who represents the International Heater Company at Davenport, Iowa, had ambitions to become a trombone player. He was at least successful enough in his attempt to get a seat in the local band. One night at a concert the band has just completed a vigorous selection and the villagers were fairly boiling over with enthusiasm and were showing their appreciation by loud applause. As the musicians sank perspiring to their seats, after bowing for the applause, our ambitious trombonist asked hoarsely, "What's the next one?"

"Washington Post March," answered the leader, consulting his program.

"Good Lord!" ejaculated C. F., "I just got through playing that!"

* * *

Use Your Will Power

If you think you are beaten, you are,
If you think you dare not, you don't,
If you'd like to win, but you think you can't,
It's almost a cinch you won't.

If you think you'll lose, you're lost,
For out of the world we find
Success begins with a fellow's will,
It's all in the state of mind.

If you think you're outclassed you are;
You've got to think high to rise,
You've got to be sure of yourself before
You can ever win a prize.

Life's battle don't always go
To the stronger or faster man.
But soon or late the man who wins,
Is the man who thinks he can.

Unusual Warm Air Installation at Portage, Wisconsin, Gives Good Results

Short Method of Figuring Heating Requirements Also Explained

By GEORGE J. DUERR

WARM air furnace installers are unusually interested in the progress of their industry and particularly in the desire to put over the Standard Furnace Code. They know that their own salvation and

Wisconsin. The basement, first and second floors of the residence are shown.

Taking the first floor living room, knowing the exposed glass area and the dimensions of the

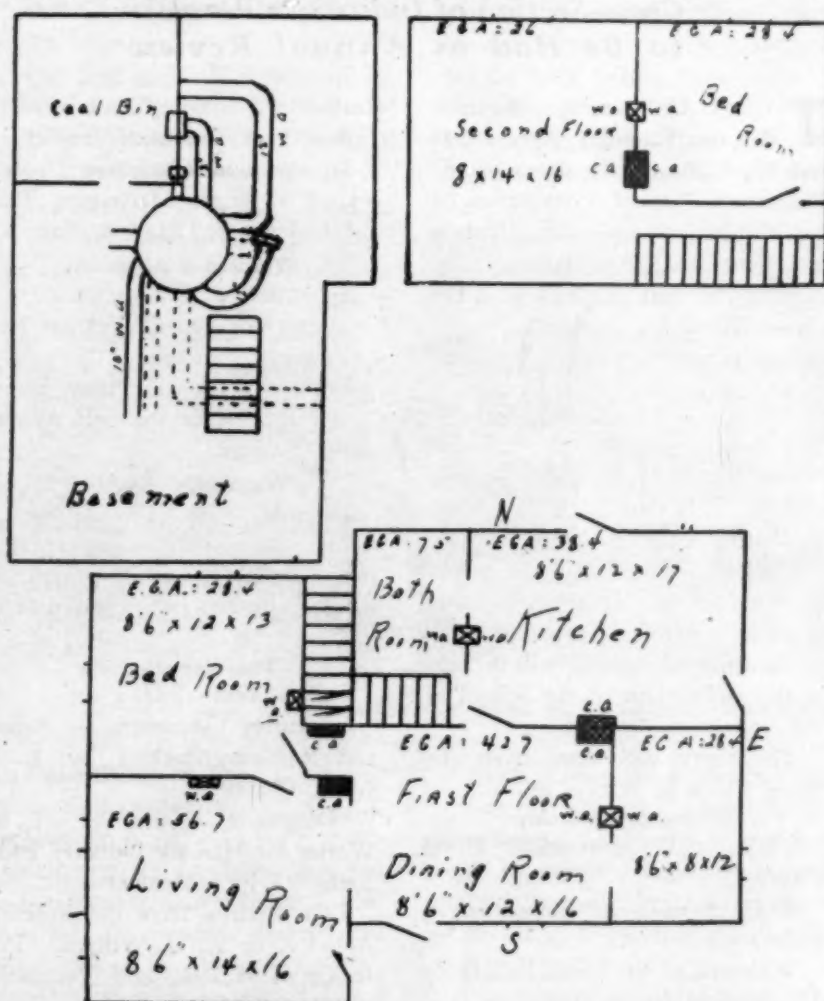
height is 8 feet 6 inches. The exposed glass area (plus the one exposed door which is assumed to be 2 feet 6 inches by 6 feet 6 inches) equals 8,164 square inches, or 56.7 square feet.

Our next step is the determination of the net outside wall area for the room. This we find by subtracting the total exposed glass area from the total outside wall area. The total outside wall area is 255 square feet. From this we subtract the 56.7 square feet of exposed glass area and we have 198.3 square feet of net wall area.

The computation of the cubic contents of the room is the next objective. Multiplying, we have $8.5 \times 14 \times 16 = 1904$ cubic feet. It is desired to have 70 degrees at zero outside temperature, with register temperature of 175 degrees.

Applying the Standard Furnace Code, we divide the square feet of exposed glass area, 56.7, by 12, which equals 4.72. The net wall area divided by 60 = $198.3 \div 60 = 3.35$. The cubic contents, $1904 \div 800 = 2.42$. Adding, we have $4.72 + 3.35 + 2.42 = 10.49$. Then 9×10.49 , required for first floor at zero temperature, equals 94.41. Adding 10 per cent for western exposure and we have 103.81 square inches, pipe area. Referring to a table of warm air pipe and register sizes, we find that 103.81 square inches falls between the two figures, 78 and 113; therefore, as we are counselled to use the next size larger, we find this to be a 12-inch pipe. Referring to our diagram, we see that Mr. Schaefer has used a 12-inch pipe.

The glass exposure in the remaining rooms is indicated on the diagram by the letters "E. G. A." Following out the same calculations



Peculiar But Effective Installation Made by Emil E. Schaefer

success is closely associated with the success of the Standard Furnace Code.

Proof that the Standard Furnace Code can be adapted to almost any type of residence is had in the accompanying illustrated example, the system in this case being installed by Emil E. Schaefer, of H. H. Senger Hardware, Portage,

room, we can quickly follow Mr. Schaefer's calculations in determining the area of the warm air pipe. From these figures it will also be readily apparent that the Code is exceedingly simplified and can be easily followed without a knowledge of the higher mathematics.

The living room referred to is 14 by 16 square feet. The ceiling

for the other rooms, the warm air pipe sizes arrived at by Mr. Schaefer for these can also be verified.

The size of the cold air ducts are determined by the total amount of warm air taken from the furnace. In the layout shown, there are two cold air returns, one an 18-inch and another a 20-inch. The furnace used is a No. 527 Gilt Edge.

The installation has been in operation for some time and the owner is entirely satisfied with its performance.

The Furnace Man's Handiest Manual, issued recently by the Waterman-Waterbury Company, Minneapolis, contains a short method of figuring pipe sizes, which they claim produces results in accord with the Standard Furnace Code, but is simpler in operation. It is merely presented in this article for the edification of the installer, taking the Waterman-Waterbury Company at its word. The method follows:

"Figure each room as follows: Square feet of glass and outside doors divided by 2. Square feet exposed wall (do not deduct glass and doors), divide by 5. Divide cubical contents of room by 80. Add the above. The sum is the required number of square inches of warm air pipe for a first floor room.

"If the room is on the second floor, deduct one-third of the above total, or if ceiling is not insulated or if attic is not tightly floored deduct one-fourth instead of one-third.

"This rule is figured for 20 degrees below zero. For locations south of Chicago and west of the Rocky mountains, deduct 10 per cent to obtain requirement at zero degrees.

"Vertical stack to heat second floor room may be 30 per cent less area than basement leader required. Size of furnace required is obtained by adding all room requirements together and consulting the table given in their catalog.

"The cold air supply must equal total of all warm air pipes used."

Following out this method in room figured heretofore, we arrive at practically the same result, to wit: Our exposed glass area is 56.7; our square feet of exposed wall surface is 255; our cubical content is 1904. Therefore, the sum of $56.7 \div 2$; $255 \div 5$; $1904 \div$

$80 = 103.15$ square inches. With the Standard Code method, we obtained 103.81 square inches, which gives us the same pipe area.

In presenting this short method, it is not our desire to detract in the least from the Standard Furnace Code.

St. Louis Meeting of National Warm Air Heating and Ventilating Association Nearing

Cross-Section of Industry's Progress to Be Had at Annual Review

TUESDAY evening, Wednesday and Thursday, April 13, 14 and 15, 1926, are the dates of the Thirteenth Annual Convention of the National Warm Air Heating and Ventilating Association. The meeting this year will be held at the Chase Hotel, St. Louis.

The program of events will be carried out as follows:

Tuesday Evening

A special inspection of the Beaumont School, 7:30 p. m. This building, it is said, is the last word in heating and ventilating and its equipment includes the most recent method for air conditioning and centrally controlled apparatus.

An informal meeting will be held in the auditorium of the school at the close of the inspection.

The party will start from the Hotel Chase at 7:30 p. m.

Wednesday Morning

9:00 a. m.—Registration, Hotel Chase.

10:00 a. m.—Call convention to order.

Welcome to St. Louis by Mayor Victor J. Miller.

President's Address, by E. B. Langenberg.

Communications.

Appointment of committees.

Treasurer's report by W. P. Cooke.

Secretary's Report by Allen W. Williams.

Legislative Committee Report, by A. P. Lamneck, Chairman.

The Association's Research Work, by C. M. Lyman, Chairman,

Research Advisory Committee.

Joint Code Committee report, by J. D. Hoffman, Chairman, Professor of Practical Mechanics, Purdue University, Lafayette, Ind.

Wednesday Afternoon

Reconvene at 1:30 p. m.

Address by Dr. E. Vernon Hill, Chicago.

Review of the Publicity Work, E. F. Glore, Chairman; L. Wayne Army, Director.

Wednesday Evening

Banquet, 6:30, Hotel Chase.

The local committee has arranged for a delightful affair. You are cordially invited and expected to attend.

Thursday Morning

Call to order—9:00 a. m.

Executive Committee — Report and Recommendations by I. L. Jones, Chairman.

"Diagnosis of the Ills of the Warm Air Heating Industry and a Remedy," by a Member.

Late Results from the Research Activity, by A. C. Willard. Professor of Heating and Ventilation and Head of the Department of Mechanical Engineering and Dean of Research Staff; A. P. Kratz, Research Professor of Mechanical Engineering; V. S. Day, Special Research Assistant Professor of Mechanical Engineering.

Recess.

Thursday Afternoon

Discussion of the Research Work, Professor A. C. Willard, Leader.

Election of officers.

Foundry of Lennox Syracuse Plant to Begin Operations About April 1st

Syracuse Plant to Take Care of Trade East of Mississippi and Ohio Rivers

WARM air furnace manufacturers are tuning up their plant facilities in anticipation of the big business now looming on the industrial horizon.

The illustration presented herewith shows what the Lennox Furnace Company, makers of Torrid Zone furnaces, has done to increase its facilities.

The first building shown on the left in the picture is the foundry, which will go into production April 1st. The second building are the

general offices, warehouse and shipping department and also temporarily houses the company's tin pipe and fitting manufacturing department. The third building is the steel manufacturing building where the steel work on Torrid Zone furnaces is built. The front part is for storage of castings. The fourth building in the picture will probably not be built before next year. It will house permanently the tin pipe and fitting manufacturing department, together with additional ware-

house space.

The front parking is laid out by a landscape gardener and when completed will make one of the prettiest little parks in Syracuse.

The company is now entirely settled down and handling all of its business east of the Ohio and Mississippi rivers from this plant.

C. H. Schechter, Eastern sales manager, says that the new plant at Syracuse is even superior to the Marshalltown plant of the company.

A statement recently issued from Syracuse by the company states that because of this new equipment 1926 prices are reduced. In addition to the reduction in 1926 prices, the company will cut and fit brick at the factory for every furnace.



Syracuse Plant of the Lennox Furnace Company

To Raise Price on Furnaces, Sell Customer on Quality Always

Many replies are being received to the questionnaires recently sent to warm air furnace dealers and installers by *The Furnace Installer*, published monthly by the National Warm Air Heating & Ventilating Association. To question Number 10, "Do you believe that the average buyer would pay 10 per cent more for his furnace if he fully understood its advantages and economy?" the answer in all but one or two replies is "Yes." One dealer says: "Yes, not only 10 per cent but as high as 30 or 40 per cent." Many others have replied "Yes and more."

Think it over for a minute.

The majority of furnace dealers seem agreed that warm air furnaces could be sold at a higher price, and yet the majority are making little or no effort to get that price.

Why?

The answer is not difficult. It centers around that one word "price," and is reflected in the attitude of many dealers toward price as a factor in selling.

Men who are selling quality goods have one common experience; they find that there are enough people in this country willing to pay any reasonable price for quality to provide an ample market for their goods. It is price articles that have to pull door bells to find

an outlet.

The warm air furnace, installed according to the Standard Code, is the quality product in the heating field. It represents the highest quality because no other heating system will do the same work as satisfactorily. In spite of this, however, there are many furnace dealers who reply to the customer's question of "how much?" with a long price argument. As a matter of fact the customer usually wants to know how much quality—not how little price.

There is but one logical way to get an increase in the selling price of furnaces, whether it be 10 per cent or more—sell the customer on quality first, last and always.

R. C. Bates Offers Minor Changes in Eickelberg Installation Difficulty

Says He Likes Heating Game and Hopes He Can Be of Service to Industry

R. C. BATES, Bates & Son Sheet Metal Shop, 106 North 12th Street, Murphysboro, Illinois, has a few suggestions which he thinks will correct the difficulties which W. C. Eickelberg is having. He writes as follows:

TO AMERICAN ARTISAN:

I have just finished reading the article on page 33 in the March 27th issue of AMERICAN ARTISAN concerning the difficulties which Mr. William F. Eickelberg of Waterloo, Iowa, is having with a furnace installation. I would correct the difficulty in this manner:

I would change pipe B to the sun parlor to an 11-inch pipe. Pipe D running to the dining room and kitchen I would change to a 13-inch. The cold air register marked X, I should have left where it was, but

as long as it is changed, I would leave it where it is now. Put another cold air return close to the landing on the second floor, preferably over the closet, so that the pipe can be brought down through the closet. This should be a 12-inch pipe. I should allow pipe C to remain where it is.

I like the heating game fine and a difficulty once in a while makes it more interesting. I am always on the lookout for a pointer. I hope this suggestion will be of some assistance to Mr. Eickelberg.

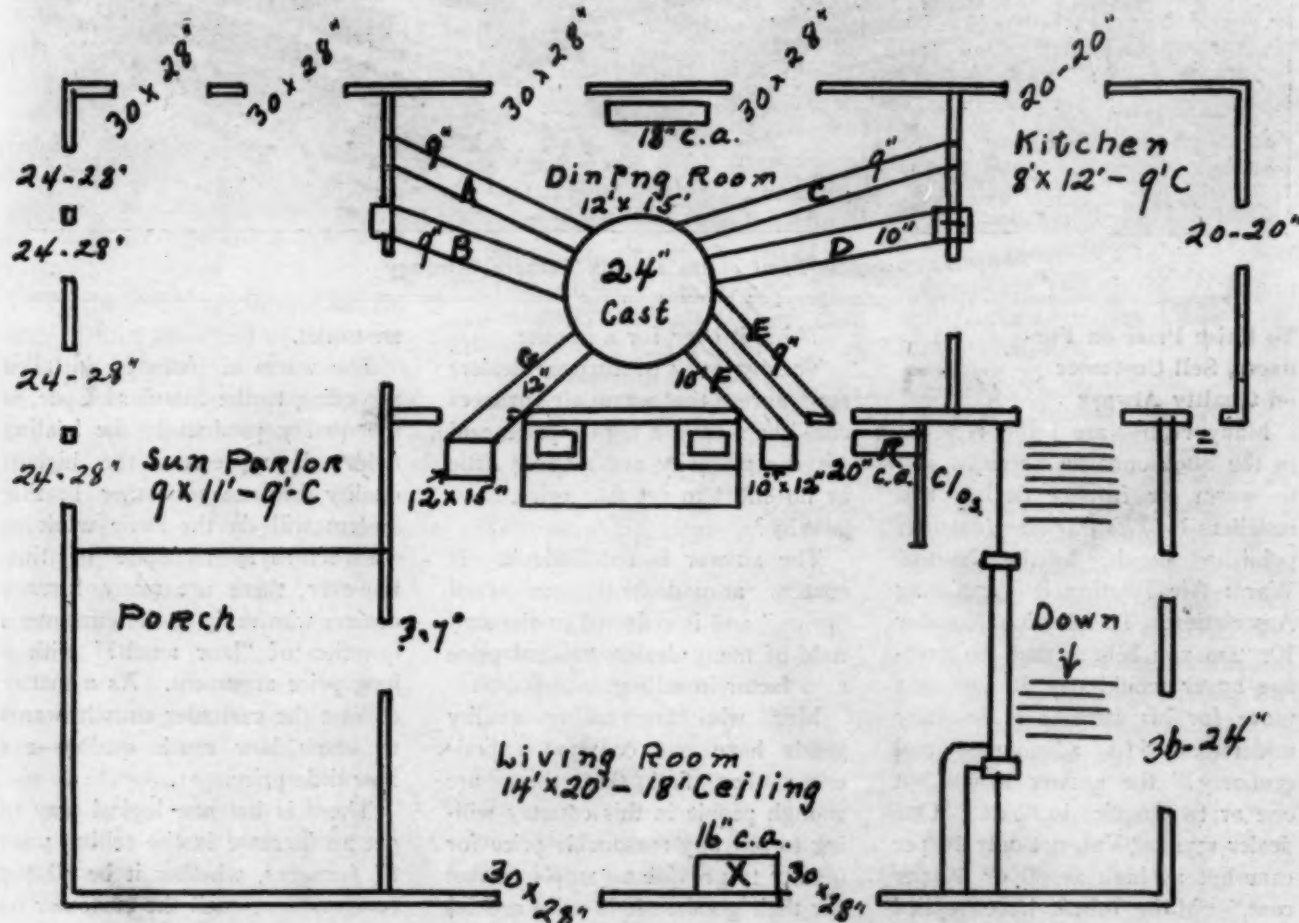
United States Register Company Develops Register Sealing Strip

The United States Register Company, Battle Creek, Michigan, makers of Jones national and inter-

national registers, have recently developed a new register with a patented sealing strip that seals the register to the box. This new development is strictly in compliance with the requirements of the section 7 (a) of the Standard Furnace Code. The purpose of the sealing strip is to prevent air leakages between the head and the register.

Full details can be had by writing the company at the Battle Creek office or to the branch offices of the company in Minneapolis, Kansas City, Des Moines and Albany.

During the recent Michigan Sheet Metal and Roofing Contractors' convention at Battle Creek the contractors had the pleasure of a visit to the plant of the United States Register Company. Each operation in the manufacture of Jones registers was viewed with great interest and enlightenment. The courtesy extended to the contractors by the company during the visit will be a memory long cherished.



Showing Installation as It Now Stands. R. C. Bates' Corrections Can Be Easily Substituted by the Reader

Waterman-Waterbury Furnace Exhibit Proves Attractive to Dealers

Display Staged at Recent Minnesota Hardware Annual Convention

WARM air furnace manufacturers are in accord on the desirability of staging furnace displays at hardware conventions. There is method in their operations in this respect. In view of the fact that many hardware men are also sheet metal contractors and furnace installers, furnace displays at hardware conventions brings the manufacturers' products before a large number of these men. The company representatives have an excellent opportunity for concentrated effort.

The accompanying illustration is that of an exhibit staged by the Waterman-Waterbury Company at the Minnesota Hardware Associa-

tion convention. Many large orders were written.

Liberty Foundry Issues Pictorial Journey Through Its Foundry

The Liberty Foundry Company, St. Louis, Missouri, makers of the Mellow pipe and pipeless warm air furnaces, have issued a small booklet entitled "A Pictorial Journey Through the Liberty Foundry." The entire work is made up of views of the interior and exterior of the Liberty Foundry. The scenes in the moulding rooms, pouring rooms, pattern shops, the melting cupolas, chemical labora-

tory, the core making department, casting and pattern storage plants are exceedingly instructive. A person knowing nothing at all of moulding processes can obtain a very comprehensive knowledge of this work by entering upon this delightful 30-minute journey through the land of industry and we might say progress.

A new 12-page catalog accompanies the journey booklet. The catalog fully describes the pipe and pipeless Mellow furnace. It shows the furnace fully assembled and in sections. Specification tables are also included in the catalog, making it a handy and ready reference for the warm air furnace installer. This duet of furnace informative reference material should be in the active file of every man having anything to do with the warm air heating industry. They will help him to progress.



Waterman-Waterbury Warm Air Furnace Exhibit Staged at the Recent Minnesota Hardware Convention.

Eickelberg's Difficulty Is That There Are Two Registers in Floor of Living Room

Size of All Pipes in System Should Be Increased to Create Balance

By CHARLES H. LEE, Lee-Radtke Hardware, Baraboo, Wisconsin

I AM writing in regard to the plan of William C. Eickelberg in your issue of March 27th. The living room with an 18-foot ceiling is a hard room to heat. I think one difficulty is that the two registers in that room are in the floor, while all others are in the wall. There being a lot of cold air in that room, the floor registers have a tendency to draw cold air. If they could be put in the side or elevated slightly from the floor, I am sure it would help. I would increase the sizes of all pipes, so as to balance the job. Make the 9-inch pipes 10, the 10-inch pipes 12, and the 12-inch 14, also 20-inch cold air duct 24, and put a division piece of galvanized iron between the two shoes where they enter the furnace, or better still, make one large shoe and bring the cold air pipes into it before entering furnace.

I have found that one large shoe placed in the rear of the casing is better than two smaller ones. Where there are two cold air pipes they must be arranged so as not to interfere with each other. Also I would reduce the number of pipes by using the double head system—a register downstairs and a stack off from it to chamber or bath.

I have had 40 years' furnace experience and am a strong believer in the double head system, but it must not be carried too far and where it is used the lower floor register must be large and fed with a large pipe.

I would rearrange this job as follows: 1. Place one large side wall register in sun parlor, with a stack off from it to chamber above. 2. Place one large side wall register in the kitchen, with stack to chamber above. 3. Place one large side wall register in the dining room, with stack off top to bathroom. Then, if possible, I would put two large side wall registers in the living room and

have the five pipes all 12-inch—and maybe one 14 inches.

Then I would flush the furnace with cold air and take a lot of it from the living room, employing no smaller than a 24-inch pipe. In my opinion the furnace used should have a 26-inch fire pot.

My experience has taught me to be a great believer in side wall registers, but there is a prejudice against them in some places, simply because these have been put in too small. Also there is a prejudice against the double head system, because the lower floor register has been used too small. Basement runs are in many cases too small. I have tried both ways and have had the best success with the double head system. I never use an 8-inch pipe any more and seldom a 9-inch. A double head should never have less than a 12-inch pipe, unless both rooms are very small.

I have found that both cold and warm air runs should be as short as possible. Get a quick circulation and do not run cold air level. If it is necessary to run between joists, piece them down some and run down hill as much as possible; in any horizontal duct increase the capacity to allow for friction. Aim to do away with friction in both hot and cold air ducts. Use anti-friction cold air shoes and boots.

In regard to the location of the cold air register, permit me to say that I learned one good lesson from the pipeless furnace and that is to make your cold air runs as short as possible.

In regard to the pipeless furnace, they are all right for certain kinds of houses, but I think even then that there is a better way. The one big virtue they have is direct heat and in many cases you can get the same result in small houses with a

pipe job and not cut such a big hole in the floor. I have had good success in heating small houses with two large floor registers with the furnace directly under them and two cold air registers with one 24-inch cold air pipe. A still better method is to use two large size double head side wall registers with two 14-inch or two 16-inch pipes to feed them. This method gives you registers in four rooms with only two pipes. These methods do away with friction and make a much better job than a pipeless job. It also permits the addition of a pipe later if you wish.

In regard to the Furnace Code, I think it is all right, but in how many old-house jobs can it be followed out? There are a lot of fools in this business. The Code is a step in the right direction, though, and should be followed as far as circumstances and buildings will allow it.

In my opinion in days gone by everything in most cases was made too small. Too small furnaces, too small registers, both warm and cold air ducts. There are many installations where the furnace is large enough, but it is not given a chance because of insufficient warm air outlet or cold air inlet capacity.

I could relate many stories of shameful jobs I have seen, as I have installed warm air furnaces in six different states. I was called in to look at one job where they were trying to heat a large house with four double head registers, each one on a 3x12 stack—144 square inches of air to heat a house that should have not less than 600, also 80 square inches of cold air. It is no wonder that warm air has a black eye in some places.

I fully believe that the warm air heating system is the only proper dwelling house system if properly installed. Two things have worked against it for years—price and ignorance of how to do it. Some methods are all right if rightly followed out.

I have thought of writing a furnace article for several years and Mr. Eickelberg's difficulty stirred me up to do it, and here it is.



“Lots of Jobs and Good Ones”

**This is the Motto of Tom Beucus Who Sold
4000 Squares of Sheet Steel Roofs This Year**

IT will do any sheet metal contractor's heart good to take a trip to Cedar Springs in Central Michigan. For miles around one can see metal roofs glistening in the sun. Not only the farmers who have steel roofs are completely sold but the others also appreciate their advantages. They lack only the funds to materialize their approval.

The chief reason for the abundance of metal roofs in this community is Tom Beucus of Cedar Springs, a hustling, live-wire type of contractor salesman, whose motto is—“lots of jobs and good ones.”

Back in 1895, 30 years ago, Beucus determined to sheet-steel his community, personally convinced that steel roofs are *the* roofs. At that time his brother John and he were operating a large busy general hardware store and prospering. Tom was not

content to wait in his store waiting for business. He wanted to go out and get it—to spread the gospel of steel among his neighbors. And he went in for steel-roofing.

The going has not all been easy but the progress has been sound. It is indicative of what every sheet metal contractor can do in his community if he will aggressively promote steel roofs. In this work the sheet metal contractor will find the Sheet Steel Trade Extension material of greatest service. Their advertising will prepare the way for many a sale, their folders and mailing pieces can be used to cover both city and farm trade.

There are many interesting suggestions for the sheet metal contractor in our booklet “How to Make More Money in the Sheet Metal Business.” Copy will be mailed on request.

SHEET STEEL™
TRADE EXTENSION COMMITTEE
OLIVER BUILDING
PITTSBURGH PENNSYLVANIA

I am 65 years old and still setting up furnaces myself. I make all my own basement fittings by hand. It will be 45 years next week since I started to learn sheet metal working and have never given up shop work. I have made warm air heating a hobby for nearly 40 years. I made the first warm air stack that was ever used in this town, and set up the first portable furnace that was

ever sold here. I learned a lot from Frank H. Wherry of 316 South Henry Street, Madison, Wisconsin, who traveled this territory for many years for the Gilt Edge furnace. He is one of the best warm air furnace men I know. He was one of the first men to take up the double head system and I took it up when he was traveling. Let's have the opinion of some others.

when we adopt more widely intelligent methods to replace gambling methods, when production and distribution experts understand the direct relation of proper credit uses to prosperity, when we have thrown terror into the hearts of the criminally inclined and reduce their banditry, our failure losses will decline. Then the future will show a better comparison with the early nineties than the present does."

Tregoe Says Commercial Failures Have Decreased in 30-Year Period

Says Little Has Been Done Toward the Reduction of Commercial Failures

COMMERCIAL failures have been steadily reduced in the past thirty years, J. H. Tregoe, Executive Manager of the National Association of Credit Men, said in a statement based on a study of commercial failures reported to the association's membership.

"Frequently I hear business men remark that, while we have made tremendous strides in production and distribution, we have done little toward reducing commercial failures," Mr. Tregoe said in his statement. "As a matter of fact, however, if losses today were proportionately as large as losses of three decades ago, present day commercial failures would be so numerous that they would be disastrous to commercial enterprise.

"Three decades ago a dependable system for the appraisal of credit risks was just beginning to develop under the cultivation of the National Association of Credit Men and the dynamo of this system was a free but confidential interchange of ledger experience. While ledger experiences were difficult to obtain, credits could not be appraised properly. Long chances too often proved to be losing gambles, but with the development of an intelligently planned credit technique, distribution widened. In 1896, when the system was first put into effect, a change took place in our business economy and we made rapid strides in our production and distribution.

"In 1896 there were 15,094 failures among 1,079,070 business enterprises. The percentage of failures in 1896 was 1.40. In 1925 there were approximately 18,859 failures among 2,242,317 business enterprises, which makes the percentage of failures .84. The purchasing power of the dollar in 1896 was 40 per cent higher than in 1913 and 2½ times higher than the price of 1925. Taking these facts into consideration as well as the great increase in our trade volume, if in 1925 there had been failures proportionate to those in 1896, losses today would be unthinkable.

"A comparison of commercial failures for 1896 with those of 1925 brings out vividly this point: that unless we had developed an intelligently planned credit technique, we could not have reached our present stages of production and distribution. We must admit, however, in a study of commercial failures losses that the proportion accounted for by criminal fraud was larger in 1925 than in 1896. That is why the National Association was obliged to raise its million dollar fund to combat bankruptcy frauds.

"We struggled 30 years ago with poor facilities for appraising credit risks, with a deficient profit economy, and with a low purchasing power of the dollar, all of which combined to wreck many business concerns. When we make further progress in our credit technique,

Independent Register Established in New Cleveland Home

The Independent Register & Manufacturing Company, Cleveland, Ohio, makers of "Independent" wrought steel registers and ventilators, "Fabrikated" register faces and pipeless furnace gratings, "Eureka" indoor chemical closets, are now located in their new factory at 3747 East 93rd Street, where they have greatly increased facilities. All mail should be addressed to that place from now on.

Texas Hardware Men Will Meet May 10 to 12

Panhandle Hardware and Implement Association will hold its seventeenth annual convention in Amarillo, Texas, May 10, 11 and 12, 1926, with the Amarillo Hotel as headquarters.

The officers of the association are: President, O. C. Watson, Clarendon; vice-president, L. E. Thompson, Hedley; and secretary-treasurer, C. L. Thompson, Canyon.

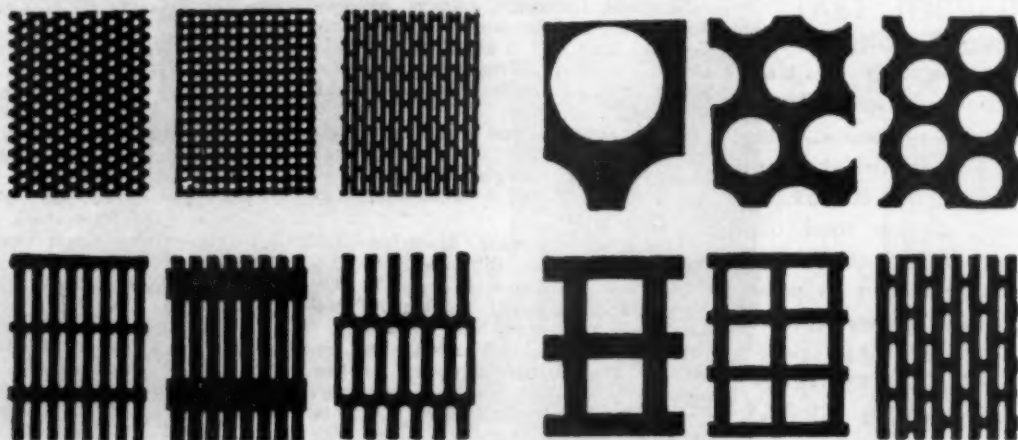
Are Income Tax Inequalities Between Corporations and Individual Too Great?

Charles H. Williams, of the Williams Hardware Company, Streator, Illinois, believes that the inequality existing between individual and corporation taxes is the most glaring of any that has ever been seen with the passage of the new tax law.

He is of the opinion that some concerted action should be taken to demand an explanation of the reason for these inequalities.

The following is a copy of a letter written by Mr. Williams under

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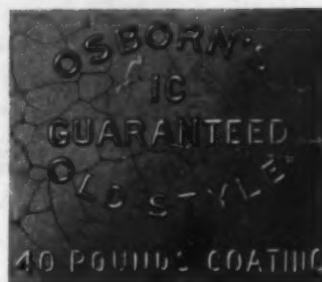
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We also make painted shingles—either red or green.

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date of March 8 to the Illinois Senators, and expresses the opinion that each member of Congress should have the matter called to his attention:

"Permit me to call your attention to the extreme inequality in the 1926 Federal income tax law. These three different types of income, that each aggregate \$20,000 net—a professional man with this classed as earned income, pays a total of \$618.75; a merchant with capital investment which he desires to protect by having the business incorporated, if he takes \$4,000 as salary and leaves the balance of \$20,000 in the business for expansion, will pay for himself and the corporation, at the 1927 rates, \$1,895.62; a corporation owned by, say, fifty stockholders, earning net \$20,000 and desires to distribute this among its stockholders, but before doing so must pay, at 1927 rates, Federal tax of \$2,430.

"Can anyone explain a valid reason for a law with such inequalities as these; namely, \$618.75, \$1,895.62 and \$2,430, all on the same amount of income, only the individual paying the small tax has the money to spend as he likes; in other cases there will be additional taxes to pay if the income reaches the surtax size? I trust you will present this to your colleagues and advise the explanation, if there is any."



Missouri Sheet Metal Contractors' Association, Columbia Hotel, Springfield, Missouri, April 5 and 6, 1926. B. Kolbenschlag, Secretary, 3618 North Grand Boulevard, St. Louis; H. R. Naber, Chairman of the Convention Committee, 311 Boonville Avenue, Springfield.

Illinois Sheet Metal Contractors' Association, Hotel Jefferson, Peoria, April 7 and 8, 1926. R. J. Jobst, Secretary, Peoria.

New York State Sheet Metal Contractors Association, Elmira, New York, April 14 and 15, 1926. John J. Yager, Secretary, 817 Sycamore Street, Buffalo.

National Warm Air Heating & Ventilating Association, Annual Convention, St. Louis, Missouri, April 14 and 15. Allen W. Williams, Secretary, 52 West Gay Street, Columbus, Ohio.

Pennsylvania Sheet Metal Contractors' Association, Hotel Lycoming, Williamsport, April 14, 15 and 16, 1926. W. F.

Angermyer, Secretary, 7253-55 Frankstown Avenue, Pittsburgh.

Texas Sheet Metal Contractors' Association, Dallas, April 22 and 23, 1926. H. Stanyer, Secretary-Treasurer, 2422 Alamo Street, Dallas.

Southern Hardware Jobbers Association, Atlanta-Biltmore Hotel, Atlanta, Georgia, May 4, 5, 6 and 7, 1925. John Donnan, Secretary-Treasurer, 821 American National Bank Building, Richmond, Virginia.

Old Guard Southern Hardware Salesmen's Association, Atlanta-Biltmore Hotel, Atlanta, Georgia, May 5. R. P. Boyd, R. F. D. No. 4, Knoxville, Tennessee, Secretary.

American Hardware Manufacturers' Association, Atlanta Biltmore Hotel, Atlanta, Georgia, May 4, 5, 6 and 7, 1926. Frederick D. Mitchell, Secretary-Treasurer, 1819 Broadway, New York City.

Southeastern Retail Hardware and Implement Association, (composed of Alabama, Florida, Georgia and Tennessee) Convention and Exhibition, Atlanta, Georgia, May 10, 11 and 12, 1926. Walter Harlan, Secretary, 701 Grand Theatre Building, Atlanta.

Panhandle Hardware and Implement Association, Amarillo Hotel, Amarillo, May 10, 11, and 12, 1926. C. L. Thompson, Secretary-Treasurer, Canyon.

Arkansas Retail Hardware Association, Little Rock, Arkansas, May, 1926. L. P. Biggs, Secretary, 815 Southern Trust Building, Little Rock.

National Association of Sheet Metal Contractors, Louisville, Kentucky, May 24 to 28, 1926. Edwin L. Seabrook, Secretary, 608 East Chestnut Street, Philadelphia, Pennsylvania.

Carolinas Hardware Association, Raleigh, North Carolina, June 8 to 10, 1926. A. R. Craig, Secretary, 717-18 Commercial Bank Building, Charlotte, North Carolina.

Mississippi Retail Hardware and Implement Association, Biloxi, June 21, 22 and 23, 1926. Guy Nason, Secretary Starkville.

Retail Hardware Doings

Arkansas

M. E. Dixon and Mrs. W. R. Brewer have opened a hardware store at Ola.

The Fuller-Judy Hardware Company has been incorporated with a capital of \$30,000. Incorporators are: E. M. Fuller, W. E. Judy and George S. Forrester.

Colorado

W. H. Miller has purchased the Castle Rock Hardware Store at Castle Rock.

Iowa

Davis and Moore have sold out their hardware business at Dunlap to the Farmers Union Exchange.

Kansas

Frank Cambrill and Jack McGeorge have purchased the Ward Hardware Store at Arkansas City.

The Standard Hardware and Supply Company at Holyrood has been incorporated with a capital of \$12,500.

W. W. Troup Estate, hardware and implements, at Lincoln has been sold to Fred Walters.

Ed Wurst has opened a hardware business at Luray.

Wellington Hardware Company at

Wellington has been incorporated with a capital of \$10,000.

Kentucky

Cassidy's Hardware Store at Covington has been incorporated with a capital of \$25,000. Incorporators are: J. Leo Cassidy, J. S. Cassidy and M. Byrne.

The Walker-Megown Hardware Company has opened for business at 612 East Third Street, Lexington.

Rheuma Brothers have sold their stock of hardware at Harris to C. R. Lahay and J. B. Schuetter.

Minnesota

George Groff has purchased the Wenner Hardware stock at Buffalo.

Belgum Doely and Tegtmeier Hardware and Implement Store at Elbow Lake is now known as Belgum and Tegtmeier.

The hardware store of Strand at Lake Park has been badly damaged by fire.

The Rudd Lumber Company has opened a hardware store at Foreston.

The Dinkel Hardware Company at Gonvick has been destroyed by fire.

R. C. Soll has purchased a building at Westbrook, where he will open a hardware store soon.

Missouri

S. R. Staples has sold his interest in the Canton Hardware Company at Canton to C. E. Bowman.

J. C. Jackson Hardware Company has opened a store at Eldon.

Milton S. Cline has purchased the hardware store of C. G. Wall at Hardin.

Joseph E. Kossman has sold his hardware and implement business at California to Charles R. Milburn and S. S. Fulks.

C. H. W. Meyer has sold his interest in the Meyer and Suedekum Hardware Company at Cape Girardeau to his partner, W. E. Suedekum.

Montana

T. A. Veblen has sold his hardware business at Roundup to M. H. Wallace.

Nebraska

Thomsen Hardware Company at Norfolk has been incorporated with a capital of \$25,000.

The hardware firm of Pipal and Hanak at David City has dissolved partnership. P. J. Pipal is the sole owner.

Henry and Walter Johnson have purchased the hardware business of the Farmers Union Exchange at Loomis.

Joseph Liefeld has purchased the Wiegand Hardware Store at Petersburg.

North Dakota

The Orr Hardware Company at Orr, Grand Forks County, has been incorporated with a capital of \$20,000.

Portal Hardware Company at Portal has been incorporated with a capital of \$10,000. Incorporators are: C. T. Holmes, Gertrude A. Chezik and H. J. Kramer.

Ohio

The James J. Petro Hardware Company of Cleveland has been incorporated with a capital of \$8,000. Incorporators are: June Davis, Ben Hershey and Samuel B. Tilles.

Oklahoma

Miller-Nelson Company have opened a hardware and implement business at Hugo.

Whitaker White Hardware Company have opened a hardware store at Stillwell.

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Made of
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Costs no more
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Steel Industry Enters April in Strong Position

Pig Iron Prices Steady—Buying Remains Light in Non-Ferrous Metals

With scarcely an obstacle to block its passage, the iron and steel industry is gliding smoothly into the second quarter.

While sentiment throughout the country is not uniformly optimistic over a continuance of activities at their present high rate, definite signs of faltering demand are not yet in evidence.

Compared with the conditions prevailing at this time last year, the industry now is in a strong position.

The Steel Corporation is operating in excess of its scheduled rate of 95 per cent of ingot capacity.

While definite figures are not yet available, it appears that the entire Chicago district made more steel in March than in any preceding month in history. Notwithstanding this high rate of operations, specifications in Chicago are exceeding shipments by an appreciable margin.

In Pittsburgh and Youngstown operations continue at between 80 and 90 per cent of ingot capacity.

Buying still is from hand to mouth, involving a quick turnover of material and preventing stocks from accumulating anywhere along the line.

Only in the Chicago district are there any signs of swelling order books caused by an excess of specifications over shipments.

Pig Iron

At Pittsburgh the pig iron market is stationary, where it has held for three months.

Certain interests look for it to remain there for some time, claiming lower figures will not stimulate buying.

Consequently, for the first time since the war the market really can be said to be stabilized.

Prices on a valley basis are \$20 for basic, \$20.50 for foundry and malleable, and \$21 for Bessemer.

Steel works furnaces are giving

full support to merchant stacks to maintain the market.

Iron stocks in brokers' hands are lower than at any time in several years.

The largest sale recently noted involved 750 tons of foundry iron made by a steel works furnace at \$20.50 base.

Only small lots of Bessemer are changing hands at present.

At Chicago the market on northern No. 2 foundry and malleable iron appears to be holding at \$23, Chicago furnace.

The special irons are inactive but unchanged in price.

At Birmingham demand for foundry iron is steady, principally for small tonnages. Furnace interests maintain a price of \$22 for No. 2 foundry.

Copper

Although several copper producers were making no effort to sell on an unwilling market, others were cautiously testing the market and large consumers in the Connecticut Valley reported several offerings at concessions.

Electrolytic was available at 13.87½ cents delivered in the Connecticut Valley, but consumers were reserved, being even disinclined to bid 13.75 cents delivered.

Electrolytic is quotable at 13.70 cents f. o. b. refinery for March and April, 13.75 cents for May and 13.80 cents for June.

Casting copper is difficult to sell at 13.25 cents f. o. b. refinery. Lake copper is dull and weak at 14 cents delivered.

Zinc

The steady tone is in evidence here also, and the principal feature promoting it is the absence of pressure from producers, who apparently have no early shipment stocks that are burdensome, and show no liking for the present level.

There are bids reported today at 7 cents St. Louis for prime western, but these are declined, and the selling at 7.10 cents is narrow, though enough for current requirements.

Tin

The New York market is steady at the decline in consequence of purchases by dealers for April, May and June deliveries, but consumers do not appear to have participated in the business to any extent.

Straits tin is offered in a limited way for immediate delivery at 63 cents, April at 62.75 cents, May at 61.75 cents, June at 61.25 cents, July at 60.75 cents.

Early Tuesday morning sales of June were made at 61 cents and May at 61.50 cents.

Lead

Lead has been a little easy in the past few days, but producers are well booked for April and are unwilling to sell at lower prices, though buyers are also well covered and do not care for much more at present figures.

The open market still is a little above the two principal sellers.

Old Metals

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$17.50 to \$18.00; old iron axles, \$25.50 to \$26.00; steel springs, \$18.50 to \$19.00; No. 1 wrought iron, \$13.00 to \$13.50; No. 1 cast, \$15.50 to \$16.00, all per net tons. Prices for non-ferrous metals are quoted as follows, per pound: Light copper, 9 cents; zinc, 5 cents, and cast aluminum, 19 cents.

Solder

Chicago warehouse prices on solder are as follows: Warranted 50-50, \$40.50; commercial 45-55, \$38.00, and plumbers', \$35.50, all per 100 pounds.

**The Finest Collection of New
and Handsome Designs in**

**ART METAL
CEILINGS
and
SIDEWALLS**

is at your disposal in selling metal ceilings if you offer the new Friedley-Voshardt complete line.

Our new book of 108 pages catalogs in a handy manner these up-to-date patterns and a copy of this book is yours for the asking.

We also specialize in made to order designs.

Write for a copy of our catalog today.

*Also manufacturers of Architectural Sheet Metal
Ornaments and sheet metal statuary in ZINC-
COPPER-LEAD—write for catalog giving com-
plete details.*

Friedley-Voshardt Co.

Office: 733-737 S. Halsted St. Factory: 761-771 Mather St.
CHICAGO, ILLINOIS

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STANDARD
"**

Ventilator



IS of the rotatable type and swings absolutely free in the slightest draft. The construction is scientifically correct and unusually strong. It works perfectly in all kinds of weather and handles 50 per cent more air than stationary ventilators of equal size. Order from your jobber. Write for our catalog and prices today.

Manufactured by

STANDARD VENTILATOR CO.

LEWISBURG, PA.

**ÆOLUS
FOR HOMES**



*The 12-Cylinder Ventilator
Used in Every State
in the Union.*

**SPECIFY ÆOLUS
VENTILATORS**

The home should be properly ventilated—few of them are. Here is a sales opportunity often overlooked by the average Sheet Metal Worker, but one which offers a lucrative business to those who take advantage of it.

Æolus-Dickinson Co.

Vent. Makers Since 1888

3333-53 South Artesian Avenue
CHICAGO

Phone: Lafayette 1862-1863

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VENTILATORS**

ROYAL VENTILATOR CO.,

DESIGNED to effectively remove impure air, fumes, etc., from Factories, Garages, Schools, etc. Made in all sizes—Metal or Glass Top. Write for catalog.

415 Locust Street
Philadelphia, Pa.

Mention AMERICAN ARTISAN in your reply—Thank you!



**How Ingot Iron Shops
Sell the Farmer**

INGOT Iron Shops do the farmer a real service by pointing out to him the rust-resisting qualities of ARMCO Ingot Iron, "the purest iron made." Its durability means a real economy every time.

Roofing, siding, troughs, corn cribs—are a few of the many farm uses where durable ARMCO Ingot Iron will save money for the farmer. And these are all profitable jobs for the sheet metal contractor.

Much of the sheet metal work in city, suburban and rural districts is going to Ingot Iron Shops. And there's a reason for it. These progressive shops not only use the many sales helps which ARMCO offers them but also cash in on ARMCO'S extensive national advertising.

If you have not already enrolled as an Ingot Iron Shop it will be well worth your while to know just how this plan will work for you. It costs nothing—the coupon will bring you complete information.

**The American Rolling Mill Company
Middletown, Ohio**

Export: The ARMCO International Corp.

Cable Address: ARMCO, Middletown.

ARMCO INGOT IRON
The Purest Iron Made



This is the Sign that
will guide sheet
metal prospects
to your shop.

Secretary,
The Ingot
Iron Shops,
Middletown, O.

Please send me a
Shop enrollment blank,
and sample literature—
and explain the many
benefits of having an Ingot
Iron Shop.

I buy ARMCO Ingot Iron from:

Name.....

Street.....

City.....State.....

(American Artisan—April 4)

Cut Steel	\$4	3
Cut Iron	4	3
Wire		
Common	3	1
Cement Coated	3	1

UNISHEAR

Portable and compact, Unishear cuts *any flat stock* quicker, better, cheaper—without burr, without distortion of material. Follows any line exactly, stops accurately at any point.

Needs but one operator even on largest work, straight or irregular.

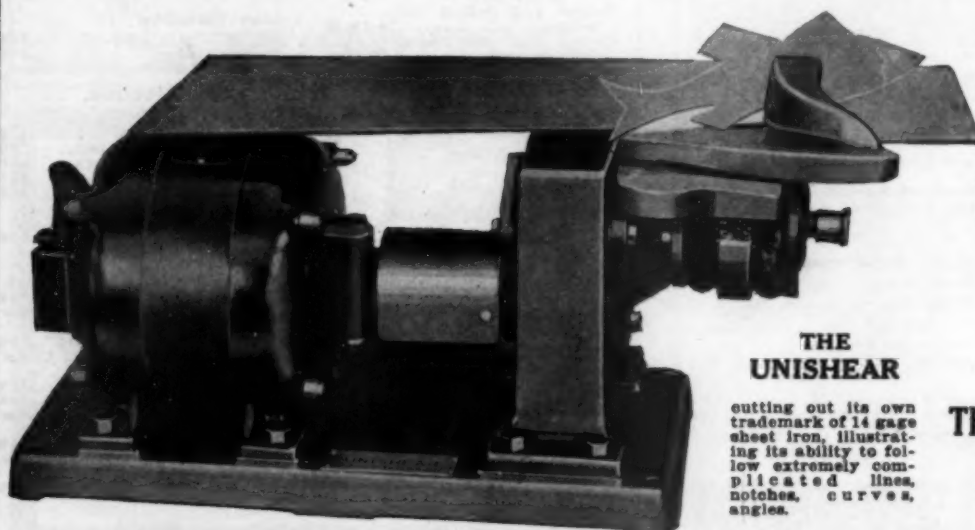
Operates from lamp socket or power circuit. "General Electric Motor" any Voltage or Cycle Available.

Capacity 14 U. S. gage Sheet Steel.

Speed fifteen feet per minute.

Ask us to demonstrate this machine on your work.

Dealers and Salesmen wanted in unassigned territory.



THE UNISHEAR

cutting out its own trademark of 14 gage sheet iron, illustrating its ability to follow extremely complicated lines, notches, curves, angles.

The Unishear Co., Inc.

170 FIFTH AVENUE
NEW YORK, N. Y.



Foot Squaring Shears—Silver City Pattern
made in all practical sizes, capacity
No. 18 gauge iron and lighter

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Write for Catalog No. 25A.



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SOUTHINGTON, CONN., U. S. A.

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Liberty Foundry Co.	—		
Lupton's Sons Co., David	—		

Markets—Continued from page 42

NETTING, POULTRY

Galvanized before weaving	45-10%
Galvanized after weaving	45%

PASTE

Asbestos Dry Paste:	
200-lb. barrel	\$15 00
100-lb. barrel	8 00
35-lb. pail	3 25
10-lb. bag	1 00
5-lb. bag	55
2½-lb. cartons	30

PIPE

Conductor	
Cor. Rd., Plain Rd or Sq.	
"Interlock" Galvanized	
Crated and nested (all gauges)	75-2½%
Crated and not nested (all gauges)	70-15%
"Milcor" "Titelock" Uniform	

Blue Stove	
28 gauge, 5 inch U. C. nested	11 00
38 gauge, 6 inch U. C. nested	12 00
38 gauge, 7 inch U. C. nested	14 00
30 gauge, 5 inch U. C. nested	10 00
30 gauge, 6 inch U. C. nested	10 50
30 gauge, 7 inch U. C. nested	12 00

T-Joint Made up	
6-inch, 28 ga.per 100	22 50
Furnace Pipe	
Double Wall Pipe and Pipe Fittings	50%
Single Wall Pipe, Round Iron Pipe Galvanized	50%
Galvanized and Black Fittings	50%
Milcor Galvanized Pipe and Fittings	50%

Lead	
Per 100 lbs.	\$12 50
POKERS, STOVE	
Wrt Steel, str't or bent.	
.....per doz.	\$0 75
Nickel Plated, coil handles.	
.....per doz.	1 10

POKERS, FURNACE

Each	\$0 50
------------	--------

PULLEYS

Furnace Tackle	per doz. \$0 60
.....per gross	4 00
Furnace Screw (encased)	per doz. 75
Ventilating Register	
Per gross	9 00
Small, per pair	25
Large, per pair	50

PUTTY

Commercial Putty, 100-lb. kits	\$3 40
--------------------------------------	--------

QUADRANTS

Malleable Iron Damper	10%
-----------------------------	-----

REDUCERS—Oval Stove Pipe

.....Per doz.	
7-8, 1 doz. in carton	\$2 00

BASEBOARD REGISTERS

Excelsior	50%
-----------------	-----

FLOOR REGISTERS AND BORDERS

Cast Iron	30%
Steel and Semi-Steel	40%
Baseboard	40%
Adjustable Ceiling Ventilators	40%
Register Faces—Cast and Steel	
Japanned, Bronzed and Plated, 4x8 to 14x14	40%
Large Register Faces—Cast, 14x14 to 28x42	60%
Large Register Faces—Steel, 14x14 to 28x42	65%

RIDGE ROLL

Milcor	
Galv., Plain Ridge Roll, B'dld	75-10-5%
Galv., Plain Ridge Roll, crated	75-10%
Globe Finales for Ridge Roll	50%

ROOFING

Best grade, slate surf. prep'd	\$2 25
Best slate surfaced	2 00
Medium slate surfaced	3 00
Light slate surfaced	1 20
Red Rosin Sheeting, per ton	57 00

SCREWS

Sheet Metal	
No. 7, ¾x¼, per gross	\$0 50
No. 10, ¾x½, per gross	40
No. 14, ¾x¾, per gross	30

SHEARS, TINNERS' & MACHINISTS'

Viking	\$23 00
Lennox Throatless	
No. 18	35%
Shear blades	10%
(f. o. b. Marshalltown, Iowa.)	

Peerless Steel Squaring

Foot Power	
No. 1-20", 18 ga. cap.	15%
No. 2-36", 18 ga. cap.	15%
No. 4-52", 18 ga. cap.	15%
No. 10-120", 22 ga. cap.	15%
No. 4A-52", 18 ga. cap.	15%

Cast Iron Foot Power

No. 01-30", 18 ga. cap.	15%
------------------------------	-----

Power Driven

No. 100 Series, 3 Shaft Drive.)	
No. 143-48", 18 ga. cap.	15%
(No. 200 Series, 3 Shaft Underneath Drive.)	
No. 242-48", 18 ga. cap.	15%
(No. 300 Series, 3 Shaft Underneath Drive.)	
No. 348-48", 18 ga. cap.	15%
No. 372-72", 18 ga. cap.	15%
(No. 500 Series, 3 Shaft Underneath Drive.)	
No. 590-90", 18 ga. cap.	15%
(No. 600 Series, 3 Shaft Underneath Drive.)	
No. 6120-120", 3/16" cap.	15%

SHOES

Milcor	
Galv. Std. Gauge, Plain or corr. round flat crimp.	55%
26 gauge round flat crimp.	40%
34 gauge round flat crimp.	10%
Conductor	65%

SNIPS, TINNERS'

Clover Leaf	40 & 10%
National	40 & 10%
Star	50%
Milcor	Not

SQUARES

Steel and Iron	Not
(Add for bluing, \$3 per doz. net.)	
Mitre	Not
Try	Not
Try and Bevel	Not
Try and Mitre	Not
Fox's	per doz. \$4 00
Winterbottom's	10%

STOPPERS, FLUX

Common	per doz. \$1 10
Gem, No. 1	per doz. 1 10
Gem, Std. No. 2	per doz. 1 00

VENTILATORS ..

Standard	30 to 40%
----------------	-----------

WIRE

Plain annealed wire, No. 8 per 100 lbs.	\$2 00
Galvanized barb wire, per 100 lbs.	2 00
Wire cloth—Black painted, 12-mesh, per 100 sq. ft.	2 10
Cattle Wire—galvanized catch weight specol, per 100 lbs.	2 00
Galvanized Hog Wire, 80 rod specol, per specol.	2 00
Galvanized plain wire, No. 9, per 100 lbs.	2 00
Stove Pipe, per stone.	1 10

WRINGERS

No. 798, Guarantee	per doz. \$55 00
No. 770, Bicycle	per doz. 55 00
No. 670, Domestic	per doz. 45 00
No. 110, Brighton	per doz. 45 00
No. 768, Guarantee	per doz. 55 00
No. 740, Bicycle	per doz. 55 00
No. 22, Pioneer	per doz. 35 00
No. 2, Superb	per doz. 35 00

The Double-Duty BRAKE SHEAR



Fits
Any
Brake

Always Ready for Use—
Rapid—Clean Cutting

Cuts 20 gauge and
lighter straight as a
Power Shear

Simple—Absolutely
Reliable

Folds up out of the way
so brake work can be
done

Strong—Easy to attach
—Will last for years

TRY IT TEN DAYS IN
YOUR SHOP BEFORE
YOU BUY

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Aurora, Ill.



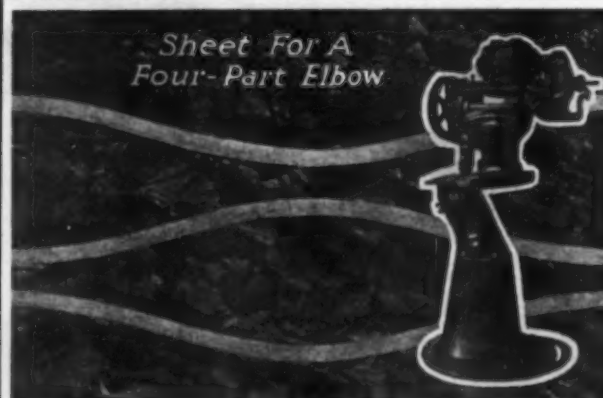
Torrid

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Furnaces

are only made by
Diener. No others
are genuine. "Tor-
rids" cost no more
than others and the
user gets greater
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If you make sheet metal four-part elbows you know what the
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part is in cutting out the pieces while they're flat so they
will fit when rolled into elbows.

This curved cutting job is quickly and easily performed on a
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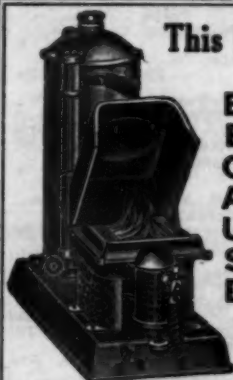
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This Is the Fire Pot You Need WHY?



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E A 2 1/4 pound copper will heat and
melt solder in **TWO MINUTES**.
C The pot will generate and operate out-
doors in **ANY KIND OF WEATHER**.
A It will heat irons as fast as they are
cooled. No time wasted.
U Less than a gallon of gasoline is
used in a day.
S It is smokeless and odorless while in
operation.
E It can be turned down low when not
in use.

Order yours now. Only \$11.00 f. o. b.
factory. Two per cent discount when cash
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Gasoline Fire Pot

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DURABLE**



Capacity 10 gauge sheets
Any Length or Width
Flat Bars 3/16x2"
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Price \$12.50 Net
F. O. B. Chicago

Made of pressed steel and equipped with
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cible steel. Most indispensable high grade shears made. Equal to
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Manufacturers of

SHEET COPPER, BOTTOMS, ROLL COPPER, TINNED and POL-
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EAVES TROUGH, ELBOWS, SHOES, MITRES, CORRUGATED
COPPER SHEETS, CRIMPED COPPER SHEETS, COPPER WALL
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work or new, aluminum parts or combinations of aluminum with other metals, made
easy. Sample bar of S. L. SOLDER with full instructions for its use sent post paid
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OUR NEW IMPERIAL PUNCH NO. 8



Large throat clearance. Capacity 3/4" hole thru 3/4" iron. Oper-
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- Brakes—Cornices.**
Dreis & Krump Mfg. Co., Chicago, Ill.
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- Chimney Tops.**
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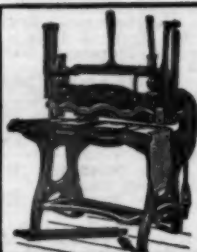
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SITUATION WANTED

Situation Wanted—By sheet metal, warm air furnace man, with twenty-three years' experience in laying out and erecting work from blueprints. Would like to get in with some firm in Chicago or any other nearby town with the chance of advancement in view. Married. Forty-three years of age. Am not a union man. Address—B-36, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 12-3t

Situation Wanted—By a combination sheet metal worker, plumber and pipe fitter with 20 years' experience. Have been in one place for over nine years. Do not use tobacco or liquor in any form. Can furnish the best of references as to character and workmanship. State wages and hours in first letter. Only steady employment considered. Address B-52, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 14-3t

Situation Wanted—By an experienced business man with 20 years' experience as an all around tin and sheet metal worker and warm air furnace man. 12 years' experience as solicitor and estimator in all branches of the business. Have some capital to invest in a well established sheet metal shop. Address B-47, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 12-3t

Situation Wanted—I would like to hear from some hardware firm that needs the service of a good sheet metal and practical furnace man with years of experience. Good references. Steady position. Might consider installation proposition with a good line of furnaces. Address B-20, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 11-3t

Situation Wanted—By first class sheet metal worker, plumber and furnace installer. Also radiator repairing and all general repairing. Would like steady position where there is plenty of work. Address B-41, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 12-3t

Situation Wanted—As branch manager or foreman for a reliable moist air heating firm. Am 24 years of age with 3 years of practical experience. Do not use liquor or tobacco in any form. Can furnish the best of references. Address 5016 Halifax Avenue South, Minneapolis, Minnesota. 12-3t

Situation Wanted—By buyer and manager for retail hardware store. Have had 15 years' experience in the retail hardware business; also 15 years' road experience. Address B-46, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 12-3t

Situation Wanted—By tinner and furnace worker in eastern Iowa or Illinois. Will work for reasonable wages is steady. State wages in first letter. Nothing but steady position considered. Address Tinner, 1114 11th Street, Sioux City, Iowa. 11-3t

Situation Wanted—By young man experienced in furnace factory, is learning the sheet metal trade, and would like to get in shop doing inside and outside work. Address B-54, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 14-3t

Situation Wanted—By first-class tinner and sheet metal worker. 20 years' experience. Address B-35, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 12-3t

Situation Wanted—By tinner and furnace installer. Prefer shop that also does radiator repairing. Address Tinner, 426 South Chicago Avenue, Freeport, Illinois. 14-3t

Situation Wanted—By a first-class sheet metal worker. Small town preferred. Address B-53, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 14-3t

Situation Wanted—First-class sheet metal worker, estimator and draftsman, experienced to produce any sheet metal work coming to general jobbing shop of larger city, including heating and ventilating. Address B-38, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 12-3t

Situation Wanted—By a first-class tinner and furnace man, experienced in all branches of the trade. Wisconsin preferred. Address B-39, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 12-3t

SITUATION WANTED

Situation Wanted — First-class sheet metal worker with years of furnace and hardware store experience. If you appreciate reliability and initiative write to B-31, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 11-3t

TINNERS' TOOLS

For Sale—Slightly used, one 52 washer used for demonstrating last summer. Retails for \$155, will let it go for only \$119. One Myers store ladder ceiling 12 ft. high. 1 hand Hiller elevator in basement 7 ft. high. 1 square shear 30" Pexto. Must be sold next week. Address B-51, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 14-3t

For Sale—One sheet iron folder 30 in.; one set of forming rolls 30 in.; one small burring machine; one small turning machine; one wiring machine; one large beading machine; one blow horn stake; one beakhorn stake. First draft for \$40.00 takes them. Address B-50, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 14-3t

For Sale—One Pexto beading machine No. 620, one pair O. G. rolls and standard \$16.00; one small burring machine without standard \$5.00; one stove pipe crimper without O. G. rolls or standard \$7.00; one roll 1 1/4 x 30 \$11.00. F. O. B. Clinton. W. W. Seifried, 106 East Green Street, Clinton, Missouri. 13-3t

For Sale—Very complete set of sheet metal tools and machinery; good as new. Will consider selling this well established business in whole or part. Price very reasonable. Location, Milwaukee, Wisconsin. Address B-55, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 14-3t

For Sale—One four section revolving steel nail bin with twenty compartments, like new. One eight foot holler oak hardware wrapping counter with 27 bins in rear, excellent condition. Address B-18, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 11-3t

Wanted—Squaring shears blades to sharpen. 24-hour service. \$1.50 per set. All work guaranteed. Address P. C. Woods, 1002 East Main Street, Washington, Iowa. 13-3t

For Sale—One Peck Stow Wilcox No. 130 "A" Square Shears in good condition. \$30.00. Address Metzger Sheet Metal Works, 144 North Edwards Street, Kalamazoo, Michigan. 14-3t

Wanted—To buy a second-hand 30-inch iron bench folder. Address B-34, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 12-3t

Wanted—A set of tinner's tools and a 10-ft. cornice brake. Address B-43, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 13-3t

Wanted — A three-quarter inch pipe pusher in good condition. Address Young Hardware Company, Bellevue, Iowa. 12-3t

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Order your books now with your renewal to AMERICAN ARTISAN. You can save 10 per cent on your total purchase. Subscription to AMERICAN ARTISAN is \$3.00 for 2 years. Take advantage of this saving also.

The book, "Home Instruction for Sheet Metal Workers," by William Neubecker, and edited by Frank X. Morio, contains facts that you want to know and know how to use. A practical instruction manual for the apprentice, mechanic and master sheet metal worker, covering the course of instruction given students in the sheet metal department at the New York Trade School. Cutting, forming, preparing full-size details from architects' blueprints, developing patterns and bending on the brake and setting the work together. Chapters on skylight and pitched skylights, stationary and movable louvers, turret sash, gearing, etc. 400 pages, 684 illustrations, bound in cloth, with 15 folding plates bound separately. Price \$5.00. Order from the Book Department, AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.

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SALESMEN WANTED

Large southern stove manufacturer of coal, wood, and gas ranges, stoves, and heaters, has opening for experienced stove salesmen in Alabama, Georgia, Florida, North Carolina and South Carolina. Reply, giving experience, references, etc. Address L-58, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 13-2t

WANTED

Traveling men who have had experience in selling stoves and warm air furnaces in Indiana, eastern parts of New York, Connecticut, Massachusetts, and Vermont, and the eastern parts of Pennsylvania and New Jersey, address L-48, care AMERICAN ARTISAN, 620 South Michigan

SECRETARY WANTED

FOR

STATE SHEET METAL TRADE ASSOCIATION

Must be a live wire with pleasing personality. We want a man who is an organizer—one who is willing to work and who is a good, convincing talker.

In replying give full details as to your experience and qualifications. Tell us just why you feel that you can fill the bill.

Your reply will be held in strictest confidence. Address Sheet Metal Trade Association, care of AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t

SALESMEN WANTED

We want a man for Kentucky and two more for New York territory at once. Must be practical warm air heating men with sales ability to produce business, in three of the best territories we have in the eastern states. Write or wire, giving your experience and references in first letter. Address, The Lennox Furnace Co., Syracuse, New York. 11-tt

SPECIAL NOTICES**SALESMAN WANTED**

Experienced and successful stove and range salesman. Good proposition for a good man. Address Gray & Dudley Company, Manufacturers of Washington Stoves and Ranges, Nashville, Tennessee. 7-2t

WE WANT A MAN

Who is thoroughly versed in all branches of Warm Air Heating. He must have sales experience and sufficient executive ability to act as Heating Engineer. There will be traveling to do until the work is well organized. We prefer a man above 38 years of age. Must have tact, diplomacy and personality. All replies will be treated in strictest confidence. Address L-57, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 13-3t

FOREMAN WANTED

For Tin Fitting Department in large Furnace Fitting Factory. Location Middlewest. State age and experience. Address L-60, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 14-3t

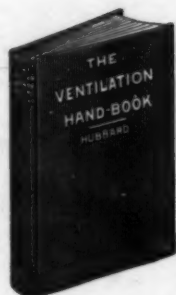
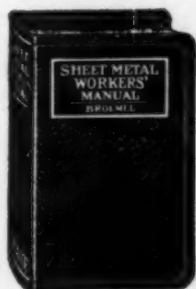
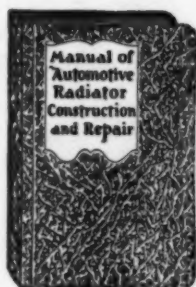
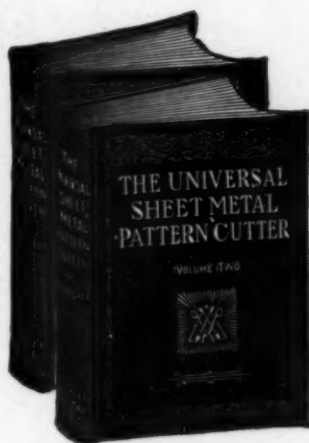
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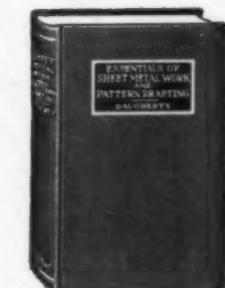
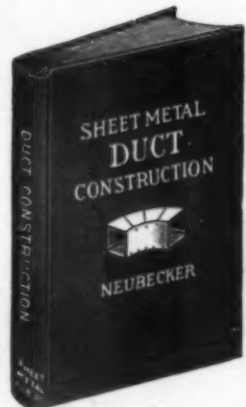
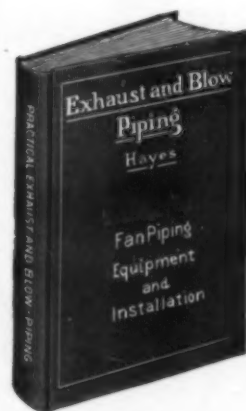
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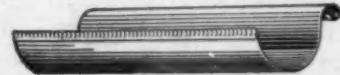
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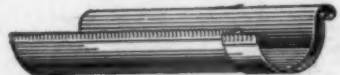
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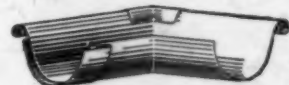
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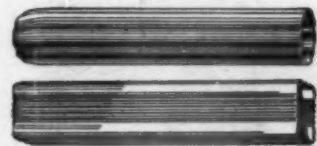
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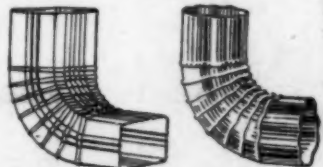
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